DOCUMENT RESUME

ED 228 408 CE 035 489

AUTHOR Phelps, L. Allen; And Others
TITLE Vocational Programming and Services for Handicapped Individuals in Illinois: Program Costs and Benefits.
INSTITUTION Illinois Univ., Urbana. Dept. of Vocational and Technical Education.
SPONS AGENCY Eastern Illinois Univ., Charleston.; Illinois State Board of Education, Springfield. Dept. of Adult, Vocational and Technical Education.; Illinois State Dept. of Commerce and Community Affairs, Springfield.
PUB DATE Sep 82
NOTE 66p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Adolescents; Adults; Case Studies; *Cost Effectiveness; Cost Estimates; *Disabilities; Educational Benefits; Federal Legislation; *Job Training; Outcomes of Education; Postsecondary Education; *Program Costs; *Program Effectiveness; Secondary Education; Sheltered Workshops; Vocational Rehabilitation; Vocational Training Centers
IDENTIFIERS Illinois

ABSTRACT

A 6-month study was conducted of Illinois job training, rehabilitation, and vocational education programs serving handicapped persons by the Illinois Vocational Education Task Force. From a list sent to 225 vocational and special education directors, Comprehensive Employment and Training Act prime sponsors, and rehabilitation services officers, eight programs were selected for in-depth case studies to determine their cost-benefits. The programs included three community colleges, two rehabilitation facilities, an area vocational center, a high school, and an evaluation and development center. Observations about the programs showed that these successful programs had extensive employer involvement, comprehensive services, strong professional personnel, excellent interagency coordination, and stable financial support from a variety of sources. The programs were expensive, averaging $4,175 per client. These costs, however, were offset by increased wages paid to the trained individuals, resulting in taxes paid and in reduction of public assistance, and by enhanced independence and self-concept. As a result of the study, recommendations were made to continue and expand economic incentives for employer participation in programs for handicapped persons, to continue federal legislative mandates for programs for them, to increase funding, to promote interagency collaboration, and to encourage local schools to provide career development education for handicapped youth. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED228408

VOCATIONAL PROGRAMMING AND SERVICES FOR HANDICAPPED INDIVIDUALS IN ILLINOIS: PROGRAM COSTS AND BENEFITS

L. Allen Phelps
L. Claire Blanchard
Dave Larkin
R. Brian Cobb

University of Illinois
at Urbana-Champaign

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Sponsored by
Illinois
State Board of
Education

Edward Copeland
Chairman

Donald G. Gill
State Superintendent
of Education

Illinois Department of
Commerce and Community Affairs

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. Reisinger

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

September, 1982

A Publication of the
Illinois Vocational Education Task Force

CG 035 489

This project was conducted with funds provided by the Department of Commerce and Community Affairs under the Comprehensive Employment and Training Act of 1978, as amended, and does not necessarily represent, in whole or in part, the viewpoint of the Department of Commerce and Community Affairs.

This project was sponsored by the Education/CETA Linkage Project at the Illinois State Board of Education and Eastern Illinois University, and does not necessarily represent, in whole or in part, the viewpoint of the Illinois State Board of Education or the University

TABLE OF CONTENTS

Acknowledgments	i
Introduction	1
Recent Legislative Mandates	1
Purposes of the Study	2
Procedures	2
Assessing Program Outcomes and Costs: Some Cautions	4
Cost of Dependency in Illinois	6
Supplemental Security Income	6
Society Security Disability Insurance	6
Unemployment Insurance	7
Handicapped Housing Subsidy	7
Food Stamps	7
Case Studies of Programs and Graduates	9
Macon County Rehabilitation Facility Decatur	10
Vocational Training for Slow Learning Adults City Colleges of Chicago	13
Food Service Training Program Triton College, River Grove	19
Special Education Resource Program Lake County Area Vocational Center, Grayslake	25
Evaluation and Development Center Southern Illinois University—Carbondale	30
Service Electronics Parkland College, Champaign	36
Illinois Central Workshop North Adams	41
Cooperative Work Training for Low-Incidence Handicapped Youth Chicago Board of Education	47
Summary Observations	52
Observations About the Programs	52
Observations About the Students	54
Policy Recommendations	57
1. Economic Incentives for Employment	57
2. Federal Legislative Mandates	58
3. Increase Funding	58
4. Interagency Collaboration	59
5. Career Development Education for Handicapped Youth	59
References	60

ACKNOWLEDGMENTS

This publication was initiated and developed by the Illinois Vocational Education Task Force. The Task Force was established in 1979 by the Association for Retarded Citizens/Illinois to assist in reviewing programs and policies related to vocational education for handicapped individuals in Illinois. Over the past three years this group has undertaken a series of small projects and studies to examine various areas of concern relative to vocational education and handicapped persons. This document is the second in a series of Task Force publications sponsored by the Education/CETA Linkage Project of the Illinois State Board of Education and Eastern Illinois University. The previous booklet, which was subtitled "A Roadmap to Productive Employment," provides parents, professionals, and handicapped individuals with an overview of the various vocational education and job training programs and services available statewide. Individuals who are interested in obtaining a copy of the initial publication should contact the Department of Adult, Vocational and Technical Education, Consultant Services Section in Springfield.

The authors and members of the Task Force, who are identified below, wish to thank Ms. Nancy McIlvoy, Mr. Don Full, and Mr. Clark Esarey of the Illinois State Board of Education and Eastern Illinois University for their assistance in developing and funding the project. Dr. Wayne Giles of Spoon River College deserves special recognition for his effective and efficient services as the director of the project. Ms. Elaine Hoff and Ms. Carolyn Zender of the Association for Retarded Citizens/Illinois also provided supportive assistance in the conduct of the project.

Special recognition and appreciation is also extended to the program staff members, handicapped individuals and their families, and their employers who gave so freely and openly of their time. Their insights, experiences and programs provided rich and valuable information for examining the costs and benefits of vocational programs.

The current members of the Illinois Vocational Education Task Force are:

Dr. Keith F. Lape (Chairman)
Associate Director
Program Services
Illinois Community College Board
3085 Stevenson Drive
Springfield, IL 62703

Mr. Cleo Anderson
Dept. of Rehabilitation Services (DORS)
623 East Adams Street
Springfield, IL 62705

Ms. Sharon Full
Illinois State Board of Education
Department of Adult, Vocational and Technical Education (DAVTE)
100 North First Street
Springfield, IL 62777

Ms. Louise Hullinger
10628 S. Lawndale Avenue
Chicago, IL 60655

Ms. Mattye Nelson
Center for Program Development
for the Handicapped
Chicago City-Wide College
185 N. Wabash Avenue
Chicago, IL 60601

Mrs. Marjorie Lee
Illinois Alliance Representative
224 W. Hickory Road
Lombard, IL 60148

Ms. Kerry Flynn
Governor's Council
on Developmental Disabilities
222 South College
Springfield, IL 62706

Mr. Tom Bever
Administrator for Special
Education Programs
7600 S. Mason
Burbank, IL 60459

Ms. Josephine Holzer
102 Old Dundee
Barrington, IL 60010

Dr. Wayne Giles
Vice President for Instruction
Spoon River College
R.R. #1
Canton, IL 61520

Ms. Carolyn Zender
Ms. Elaine Hoff
Association for Retarded
Citizens/Illinois
504 East Monroe
Springfield, IL 62701

Dr. Phil Viso
Mr. Paul Shaneyfelt
Vocational Education
Chicago Board of Education
Room 642
228 North LaSalle Street
Chicago, IL 60601

Mr. Clark Esarey
Eastern Illinois University
504 East Monroe
Springfield, IL 62701

Ms. Guadalupe McDougald
Administrative Services
Harry S. Truman College
1145 West Wilson
Chicago, IL 60640

Mrs. Bert Dahms
1431 Park Avenue
River Forest, IL 60305

Dr. L. Allen Phelps
Department of Vocational and
Technical Education
University of Illinois
345 Education Building
Champaign, IL 61820

INTRODUCTION

During the 1960's and 1970's concern for handicapped individuals increased dramatically. As a result of several landmark court decisions, legislation was introduced to create new and exciting educational, employment, and housing opportunities. Clearly, one of the major social policy objectives of federal and state governments has been to assist handicapped individuals of all ages to live and work independently within their communities.

More recently a recession and international conflicts have created a shift away from social policies and in the direction of economic and national defense concerns. While these are important and vital issues for the nation, it is imperative that we retain the basic assurances of equal educational and employment opportunity. Tremendous strides have been made in providing access to meaningful and appropriate education and job training programs. Enrollments of handicapped youth and adults in vocational education and employment and training (CETA) programs at the secondary and post-secondary levels have increased steadily. These programs, along with vocational rehabilitation and special education programs, have been instrumental in providing handicapped individuals with the job skills they need to be independent and productive workers.

Recent Legislative Mandates

These new and expanded educational and employment opportunities were created by several pieces of important federal legislation.

The earlier publication of the Task Force (*Roadmap to Productive Employment*) provides a history and an in-depth description of the Vocational Education Act (P.L. 94-482), the Education for All Handicapped Children Act (P.L. 94-142), the Comprehensive Employment and Training Act (P.L. 94–524), and Section 503 and 504 of the Rehabilitation Act of 1973 (P.L. 93-112). Clearly, the 1970s were a period when significant federal legislation was enacted to assure that handicapped youth and adults received appropriate educational and employment opportunities and programs.

The Comprehensive Employment and Training Act (CETA) of 1978 provides job training programs and supportive services to disadvantaged, unemployed, and underemployed individuals, including handicapped persons. The U.S. Congress has recently passed new legislation to replace CETA. A major focus of this new legislation is to stimulate greater involvement by private business and industry in addressing the job training and employment needs of disadvantaged, unemployed, and underemployed citizens. It appears as though the annual federal budget for these programs will remain at about $3.5 billion.

The Vocational Education Amendments of 1976 provided "set-aside" funds to pay for the additional costs of educating handicapped and disadvantaged students in vocational education programs at the secondary and post-secondary levels. As a result of this legislation, 40,568 handicapped students were enrolled in vocational education programs throughout Illinois in 1980–81. These students were enrolled in community colleges, area vocational centers, and high schools statewide (Adult,

Vocational, and Technical Education, 1982, p. 22).

Sections 503 and 504 of the Rehabilitation Act of 1973 provide affirmative action and nondiscriminatory assurances for handicapped individuals. Section 503 requires that employers doing business with the federal government must take "affirmative action" to recruit, hire, train, and promote handicapped individuals. Handicapped persons cannot be denied employment solely on the basis of their handicap if reasonable accomodations can be made. Section 504 prohibits any federally-funded agencies (such as community colleges, public schools and CETA Prime Sponsors) from discriminating against individuals solely on the basis of their handicap. Programs, services, and facilities offered by these agencies must be accessible to and appropriate for handicapped individuals.

As noted earlier, the number of new programs and opportunities now available to handicapped individuals is tremendous and appears to still be growing. As local, state, and federal policymakers and taxpayers plan for the future, it is important to examine the costs and benefits of these programs. Informed decisions about the need for certain programs, program funding levels, and the specificity of regulations should be based primarily upon the impact that these programs are achieving. That is, are the programs enabling handicapped individuals to become independent and economically-viable workers? Are handicapped persons moved from the dependency side of the ledger to the independent side of the ledger? These and other similar questions are vitally important to determining the economic impact of job training and vocational education programs upon handicapped youth and adults in Illinois.

Purposes of the Study

With financial support from the Illinois State Board of Education and the Illinois Department of Commerce and Community Affairs, the Vocational Education Task Force undertook a six-month study of several job training, rehabilitation, and vocational education programs in Illinois serving handicapped individuals. The overall purpose of the study was to examine the costs and benefits and economic impacts associated with providing handicapped persons with marketable job skills. More specific purposes of the study included:

1. To identify and estimate the costs and benefits (monetary and non-monetary) and economic impact of providing vocational training to handicapped individuals.
2. To provide useful data and information to policymakers regarding the effects of selected programs upon the individuals being trained, their employers, and the taxpayers of Illinois.
3. To describe and document the effectiveness of selected vocational training programs.

Procedures

1. The Illinois Vocational Education Task Force provided guidance in planning and developing the study. This 18-member committee, which was originally sponsored by the Association for Retarded

Citizens/Illinois, was created in 1979 and has undertaken a series of projects designed to improve and expand education, training, and employment opportunities for the handicapped citizens of Illinois. The group, which is composed of parents, educators, and state agency personnel, meets regularly to review and discuss statewide policy or programming initiatives related to vocational education, special education, rehabilitation, developmental disabilities, and employment and training. Several meetings of the Task Force were held during the project to develop the plan for the study, select the programs to be studied, and review the drafts of the case studies and final report.

2. In May, 1982 a program nomination survey was mailed to some 225 directors of special education districts, area vocational centers, career/occupational programs in community colleges, CETA prime sponsors, rehabilitation facilities and regional Department of Rehabilitation Services (DORS) offices. The purposes of the cost analysis study were outlined in a cover letter. The two-page survey asked for such program descriptive information as: (1) types of handicapped student(s) served, (2) vocational areas in which training was provided, (3) funding source(s) for the program, and (4) the number of handicapped students who had been placed in competitive employment over the past three years. After a four-week period a total of 56 nomination surveys had been received. From among the 56 programs that were nominated, the project staff and Task Force sought to identify a set of 7–10 programs that: (1) were funded by multiple federal and state agencies, (2) were in different georgraphic areas of the state, (3) had been in existence for several years and had successfully placed at least 10 former students in competitive employment over the past three years, and (4) included high schools, rehabilitation facilities, CETA programs, and community colleges. Eleven of the 56 programs that were nominated met these criteria. The staff and Task Force devoted a meeting to discussing and reviewing each of the 11 program nominations. From this discussion eight programs which appeared to represent the optimum blend of programs for cost-benefit analysis were selected for further study.
3. During the months of June and July visits were made by the project staff to each of the eight programs. In-depth interviews were conducted with program directors and staff at each site. After reviewing and discussing the purposes, design, and target audiences of the program, the directors were asked to identify a few former handicapped students who had completed the program and been continuously employed in a competitive setting for at least a year. Based on the descriptions of these former students, one student was selected by the project staff for an in-depth case study. As the project progressed an attempt was made to select students who were different (i.e., different disabilities and occupations) from those selected for study in the programs visited previously. This helped to ensure that handicapped students of different ages, sex,

occupations, and handicapping conditions would be included in the study. Arrangements were made for in-depth interviews with the former student, his or her employer or job supervisor, program staff members who had worked with the student, and any significant others who had been closely involved with the individual. In several instances the parents of the student were also interviewed. Also, permission was obtained to review the former student's cumulative record file during the on-site program visit.

4. Following the on-site program visits, an initial draft of a case study of the program and former student was prepared. These brief case studies were reviewed and critiqued by project staff members. A further critique was conducted by members of the Task Force. In nearly all instances, additional information was collected from persons associated with the program who had been interviewed earlier.
5. A cost-benefit analysis profile containing financial information for each former student was also compiled. This profile included such data as: the total cost of the individual's vocational training program, the former student's 1981 earnings, federal and state taxes, and his/her employer's contributions to retirement plans and health, medical, and dental insurances. Permission to review and use these data was obtained from the former student prior to reviewing state and federal tax forms and earnings statements.
6. In most of the cases studies, the former students or their parents preferred the report to use a fictitious name. While the data and information are factual, the names of the students involved were changed to protect their privacy. In one of the cases it was necessary and appropriate to alter the name of the program and community to assure anonymity for the individual studied.

Assessing Program Outcomes and Costs: Some Cautions

As a preface to interpreting the information in this study, it is important that we recognize some of the major limitations and assumptions that are inherent in a study of costs and benefits of educational programs.

1. Vocational education and training programs have a broad range of goals, objectives, and outcomes. The National Center for Research in Vocational Education has recently completed a study in which 18 major outcomes have been identified as being pursued by vocational education programs. Such diverse outcomes as providing trained workers for the labor market, promoting safe working habits, increasing satisfaction with work, and increasing earnings and worker productivity have all been associated with vocational education programs at some time in some state or community. One can readily see the problems inherent in measuring some of these outcomes in economic terms. For instance, it is extremely complex to determine and measure the effects that vocational training has upon one's level of work satisfaction. Obviously, there are numerous other variables such as career interests and aptitudes and personal-social factors in the work environment which are likely to

strongly influence the level of one's work satisfaction. Further, most taxpayers would agree, that it is enormously difficult to affix a dollar value to outcomes such as increased work satisfaction.

2. For analysis purposes, it is difficult to separate out the costs and benefits of vocational training from other educational programs and services the handicapped student receives. For a high school special education student, for instance, how should the cost of general special education, which is providing instruction or counseling in personal-social skills, be analyzed in relationship to the cost of the vocational education program? To what extent do these related programs (such as guidance and counseling services, residential costs, physical education, transportation, or school lunch programs) contribute to the student's level of employability? Making judgements about these joint or related costs is extremely difficult and often arbitrary in cost-benefit analyses.
3. There are also hidden costs which are often borne by the families of handicapped persons that often cannot be accurately calculated. An accurate measure of what parents forego financially by choosing not to accept Supplemental Security Income (SSI), Social Security Disability insurance (SSDI) or unemployment compensation for their handicapped child is difficult to project. Often the residential costs associated with handicapped adults are assumed by the parents as well, and thus not assumed by the taxpayers.

Cost of Dependency in Illinois

A variety of federal and state programs have been created over the years to assist handicapped individuals. These public assistance programs have been focused on providing different forms of financial assistance, including supplemental income, food stamps, subsidies for housing and medical and health insurance. Some of the programs are specifically for handicapped persons while others are designed for persons with poverty level incomes.

The programs described herein have been referred to by Bowe (1980) as "dependence-oriented programs." As we examine the costs and benefits associated with providing vocational education and job training to handicapped individuals, it is important to examine two major financial factors. First, cost analyses must examine the extent to which the training programs provide disabled persons with marketable job skills; which in turn, increases the economic value of handicapped persons entering or re-entering the labor market. Second, it is important to examine the cost savings that are realized by society as a result of having fewer individuals dependent upon social welfare programs such as unemployment insurance, supplemental security income and food stamps. This section will review some of the costs involved in those social welfare programs that provide direct payment or subsidies to handicapped persons because they are unable to work or because their income is below the poverty level.

Supplemental Security Income (SSI)

Initiated in 1974, this federal program is administered by the Social Security Administration and is designed to provide financial assistance to persons or families with exceptionally low incomes. To be eligible for SSI, single individuals must have personal resources of less than $1,500, while married individuals must have less than $2,500 of personal resources. The financial value of personal resources held by the individual (e.g., automobiles, insurances, etc.) are considered in determining eligibility in addition to an income requirement. In Illinois, the maximum monthly SSI benefit is $284.20 presently. Thus, the maximum amount paid to an SSI recipient is $3,411.60 annually. Recipients of SSI benefits are allowed to earn up to $20 over their monthly benefit without losing their benefits. Also, during a five month trial work period SSI recipients can continue to receive their monthly SSI payments even though their monthly income exceeds their monthly SSI check by more than $20.

Society Security Disability Insurance

The same basic criteria and allowances apply to the Social Security Disability Insurance program (SSDI) as applied to SSI. However, SSDI is intended exclusively for physically and mentally handicapped persons.

The Illinois Department of Rehabilitation Services is responsible for making the medical eligibility decisions for persons applying to Social Security district offices for SSI/SSDI cash benefits. Each year about 115,000 Illinois residents are applicants for SSI/SSDI benefits. In Fiscal

Year 1981 over 16,000 of these individuals were referred for vocational rehabilitation services, and about half of them (approximately 8,000) became DORS clients. The cost of vocational renabilitation services to SSI/SSDI recipients averages about $3.5 million per year in Illinois. During Fiscal Year 1981, the total expenditure of funds to SSI and SSDI recipients in Illinois was approximately $5.6 million (Granzeier, 1981).

Unemployment Insurance

While this state program does not have specific eligibility provisions for handicapped individuals, it is a program through which many handicapped workers receive funding. During any period in which an individual is employed the individual's employer pays into the state unemployment compensation fund. The amount paid by the employer depends upon the firm's unemployment record, as well as the number of employed persons in the state and the average length of unemployment.

The amount of the unemployment benefit depends upon the wages received during the quarter (3-month period) in which they earned the most income. For instance, if an individual earned $3,000 during a three month period, he or she would be eligible to receive $116.00 per week for up to 26 weeks. If this person also had a non-working spouse and/or child, he/she would be eligible for an additional $63 per week for a total weekly benefit of $179. Currently, the minimum weekly benefit is $45, while the maximum benefit payable is $154.

Handicapped Housing Subsidy

For eligible handicapped persons, Section 8 of the Federal Housing Act of 1937 provides a housing subsidy for all housing (rent) and utility expenses in excess of 25% of the individual's monthly income. Handicapped individuals with annual incomes of less than $9,300 are eligible.

Food Stamps

Through the Department of Agriculture food stamps are available to assist individuals and families with low incomes. Individuals with incomes of less than $5,012 are eligible for food stamps. The maximum benefit of $732 is available to individuals with no income (including SSI). Once a persons' income reaches the $6000 level they are only eligible for $120 per year in food stamps.

Summary

Supplemental security income (SSI), SSDI, unemployment insurance, housing subsidies, and food stamps represent the major programs in Illinois (and nationally) that provide direct financial support to persons who are handicapped and/or have incomes below the poverty level. There are numerous other programs and agencies such as vocational rehabilitation, corrections, developental disabilities, vocational education, and special education which also utilize public dollars and provide assistance for handicapped persons to achieve a greater degree of economic indepen-

dence. Because of differences in client eligibility criteria, it is difficult to calculate accurately, the total expenditure of federal and Illinois tax dollars for the various programs described herein. The total annual costs to Illinois taxpayers for serving handicapped persons in the four direct transfer programs described earlier is in the range of $40-50 million. Many of these individuals can and must be provided marketable job skills that will enable them to become employed. Increasing the employability of handicapped persons can reduce their dependency on, as well as the exorbitant cost of these programs.

Case Studies of Programs and Graduates

Contained in this section are the eight case studies which were developed through this project. The programs and students described herein were selected to convey the broad range of personal and societal outcomes that are realized by providing vocational training to handicapped persons. There was no attempt to compare or judge the programs. Each program has a somewhat different mission, target audience, delivery system, funding base, and community context. Thus, it is inappropriate to attempt to make comparisons or qualitative judgements about the programs or their graduates based on the information in these case studies.

The format and content of each case study is somewhat unique because each conveys a different story about the program and the former student who was interviewed. Also, they are different because the case studies were prepared by different project staff members. The perceptions and writing style of the interviewer/author are consequently reflected in the final product.

While each case study is oriented differently, three major sections are presented. The first is a full description of the vocational education or job training program and its goals, target audience, operating procedures, and level of funding is presented. In some instances the program descriptions include other evaluative data about the program such as the results of student and employer follow-up studies.

A second major section of the case study includes a description of a former student who completed the program and has been competitively employed for at least one year. This section provides a detailed description of the former student, his experiences in the program as well as the experiences encountered in obtaining and maintaining employment. Observations from the student, his employer, former teachers and counselors, and his parents provide the framework for this portion of the case study.

The final section of the case study reports the training program and relevant social program costs for the individual student. This "Cost-Benefit Profile" also contains information about the former student's 1981 earnings, state, federal and FICA taxes, and work-related benefits, such as retirement, health and dental insurances.

In this project, the case study approach to developing an understanding of costs and benefits was used as an alternative to more commonly accepted methods of cost-benefit analysis and program evaluation. It is important to recognize both the advantages and limitations of the case study approach as it was used in this project. Some of the advantages of the case study include (Guba and Lincoln, 1981):

- a more lifelike representation of a specific situation;
- a simplified or streamlined treatment of data that makes the report more understandable to a wider range of readers;
- the fact that a case study tends to naturally focus the attention of the reader to the matters of interest;
- the capacity to communicate more than is written; meanings, understandings, and emotions may arise from language which tran-

scends the meanings of individual words or phrases; somehow the reader seems to obtain a deeper sense of the actual substance of the case; and,

- an understanding of the environment or setting within which events occur.

Among the disadvantages of the case study one should consider:

- the oversimplification or exaggeration of a situation;
- the dependence upon the interpretations of the author(s);
- it may be difficult to detect biases or errors in judgement on the part of the author(s);
- the case studies selected may not represent the population of interest; and
- that case studies are only partial accounts of that which they purport to depict.

MACON COUNTY REHABILITATION FACILITIES, INC. Decatur, Illinois

The Macon County Rehabilitation Facility (MCRF) is located in Decatur Illinois and is accredited by the Commission on Accreditation of Rehabilitation Facilities. MCRF was chartered in 1969 and opened in 1970 with three staff persons, 14 clients, an annual budget of $30,000 and a physical plan of 6,000 square feet. Since that time the facility has experienced significant growth and despite a recent reduction of eight staff persons, now serves over 200 disabled clients on a daily basis, has over 30 staff members, an annual budget of $1,300,000, and a physical setting of 50,000 square feet. Well over 1,000 clients have been placed in the competitive labor market through the efforts of this facility and placements include such jobs as: factory assembly line workers, construction laborers, administrative assistants, custodial/janitorial workers, secretarial personnel, and electronic parts assemblers.

The MCRF works with local industries on a contractual basis. In 1982 MCRF anticipates expanding the number of new contracts to a level where contract income will support in excess of 50 percent of the facility's operating budget. The contract activities allow persons referred to the facility an increased variety and volume of work for training purposes.

Adam Smith is a graduate of this program. Adam, a 24 year old dishwasher, is a pleasant, confident young man who is proud of what he has accomplished. Talking with Adam reveals great progress in his goals to be independent and to be successfully employed.

Adam's primary disability is mental retardation (MR), but his disability is complicated by epileptic seizures (grand mal). His records, in terms of employment placement, indicate that the seizures may be more of a problem than the MR status despite the fact that they are controlled by medication.

After graduation from high school at the age of twenty, Adam found a job in a local restaurant as a dishwasher. He received on-the-job training from the employer and enjoyed his job but was fired when he experi-

enced a seizure at work, fell down a stairway and was injured. For the next year Adam was unemployed despite his active and aggressive search for any type of employment.

Adam is very open in discussing his epileptic condition and this period of his life. He clearly communicates the problems of trying to find a job, collecting unemployment benefits, and the sense of depression and helplessness that he associated with not working. He spoke of the boredom while he was unemployed and the days of drinking, smoking, overeating, and watching television. During this time of unemployment, Adam could not take part in any of the activities he enjoys since he had few friends and little or no "pocket money". His unemployment benefits totaled $90 every two weeks, out of which he also had to pay his rent. His apartment at that time (he has since moved) was described by his counselor as a "real dump".

After a year of unemployment and looking for work, Adam enrolled at the MCRF, based on a referral from the Department of Rehabilitation Services (DORS). He was considered an average or typical client at the rehabilitation facility when he began eight weeks of vocational evaluation. This evaluation confirmed his interests to be specifically geared toward janitorial and/or kitchen service types of employment. The evaluators considered these aspirations to be both "realistic and appropriate". After the evaluation period, Adam entered the Work Adjustment Training Program at the rehabilitation facility. During this phase of training he worked at several tasks including the operation of a machine which dismantled wooden pallets. Adam was so proficient in the operation of this machine he was able to increase his earnings to approximately $100 a week, the maximum amount paid for this task.

At the completion of the year in the Work Adjustment Training Program, Adam was placed by MCRF at Perkins Cake and Steak Restaurant in Decatur as a dishwasher/kitchen worker. The initial two weeks of this employment placement were considered to be an on-the-job evaluation (OJE) during which time Adam's performance was closely monitored and he was paid one-half the minimum wage ($1.68 per hour). It was quickly determined that extensive monitoring was not necessary during the OJE period because of Adam's previous dishwashing experience and his employer agreed that during OJE, Adam was successfully handling the job pressures and responsibilities and that pre-seizure symptoms were not occuring. Adam's salary was increased to $3.35 per hour at the completion of the two-week OJE period.

Adam reports it was not difficult for him to learn to operate the machines used on his job due to their similarity to the kitchen equipment he had operated in the other restaurant in which he had worked. He feels his work at the rehabilitation facility also helped him to use machines and that his training at the rehabilitation facility was very important in his transition to the new job.

Adam's employer is very satisfied with Adam's performance and rates him as one of Perkins' most dependable workers. He uses the trash compactor, dishwasher, garbage disposal, and the wet vac with no problems.

The employer reports Adam can do everything any other dishwasher is doing and is such a valued employee that they are trying to help him with transportation problems and to allow him days off to attend church. Due to his seizures, Adam no longer rides his bicycle to work. It was unclear whether this is Adam's choice or that of his physician, but Adam indicated he is afraid to ride the bike to work because the physical demands of a day's work may bring on a seizure while riding home. Adam stated that he always takes his medication so to avoid having a seizure and missing work. Adam now relies on public transportation and pays 60 cents per day to ride the bus to and from work using a half-fare card which is available to certified handicapped individuals. When the bus schedule does not match Adam's work schedule, his supervisor at Perkins often picks him up and takes him home after work.

The supervisor also reported Adam has no problems with other workers and is very polite. He is always clean and in uniform and is able to handle the majority of his own paper work. His current wage is $3.45 per hour and he works from 30 to 35 hours per week. He eagerly seeks overtime but is seldom allowed to work additional hours since several other employees are also available and interested in overtime pay as well. Adam's supervisor reported that he possesses "excellent work habits" and does a "darn good job".

After a month of successful work at Perkins Cake and Steak Restaurant, Adam moved to a 16-unit apartment complex, managed by the MCRF, which is a federal Housing and Urban Development (HUD) project. This apartment complex houses handicapped persons and a resident counselor. Adam pays $65 a month rent for an apartment he shares with another young man. The apartment arrangement has been quite beneficial to Adam—he has attained greater independence, has a network of friends and has even helped teach some of the classes given in the apartments. Adam is quite skilled in some areas and has been involved in teaching others to cook. He likes to help others who are "slower than I am" by reading their mail to them or helping them learn to cook or take care of their apartments.

Adam has a girlfriend who also lives in the apartment complex, and they enjoy going to movies, bowling, watching TV, and going out to dinner together. He also cooks dinner for her because she is still learning to cook. Adam also enjoys taking his friends bowling and out to eat. Many of these friends are in Work Adjustment or sheltered employment at MCRF and could not afford or be able to benefit from these recreational activities without Adam's support. It is obvious that Adam derives great pleasure from providing for less fortunate others and these activities enhance his feelings of self-worth. It is equally obvious that these pleasures were not available to Adam during the time he was unemployed.

Training and supportive services have enabled Adam to become a productive member of the work force. He has reduced his dependency on society and in his own words is "much happier now". It is apparent that his job means far more than simply the monetary value that is attached to it. Certainly it would be reasonable to state that Adam's life revolves

around his job and the sense of personal independence and responsibility that seem to be closely related to this successful work experience. Because of this success, Adam is able to take care of his personal needs, live near his friends, and help others. He is substantially less dependent upon others, both personally and financially and, in fact, contributes to the society in which he lives as he assists other and pays his fair share of the tax burden.

COST-BENEFIT ANALYSIS PROFILE
Adam S.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$6,457.00
Related social costs (Monthly subsidy x 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$ 0	$ 0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	$ 480.00/yr.	$ 90.00*
Unemployment insurance	$2,340.00/yr.	0
Handicapped housing subsidy	?	$1,962/yr.
Other significant social costs:	0	0
Benefits to Society (1981)		
Total earnings		$3,900.00
Federal taxes paid		81.00
State taxes paid (2.5%)		72.50
FICA (6.4%)		185.60
Employer's share of:		
Retirement		
Health/life/dental insurance		
Other benefits:		

*during training

COST-BENEFIT OBSERVATIONS: Adam S.

1. Since completing the program at the MCRF, Adam has been employed for 12 months. This represents the longest period of time that he has been competitively employed. While his annual salary (projected at $6,457) is only slightly above minimum wage, he has become economically self-sufficient and is no longer totally dependent upon the social welfare system.
2. Adam's initial employment helped reduce his eligibility for food stamps from $40 per month to $15 month. From August, 1980 to August, 1981 his food stamp allotment was worth $40 per month. When he took the position at the restaurant his eligibility for food stamps dropped to $15 per month. However, since January, 1982 he is no longer eligible for food stamps. The net benefit to Illinois taxpayers for Adam's reduced and foregone food stamps is approximately $420 for August, 1981 to August, 1982.
3. Perhaps the most significant social cost savings in Adam's case is unemployment insurance. During the year prior to his training at MCRF, Adam was unemployed and received the maximum allowable benefit of $45.00 per week or $2,340 for the year.

VOCATIONAL TRAINING FOR SLOW-LEARNING ADULTS
City Colleges of Chicago; Chicago, Illinois

Since 1979 the City Colleges of Chicago have operated five vocational training and placement programs for slow-learning adults. To date, nearly 225 individuals have participated in the five different programs, which provide on-the-job vocational training in the following areas: clerical, hospital services, hotel services, maintenance and laundry services, and food service. As of May, 1982, 93% of the mentally handicapped individuals who completed the six month programs had been placed in competitive employment. Some of the students completing the program were recruited and hired by the firms in which they were trained. The major goal of each of the vocational training programs was to provide slow-learning adults with the vocational and social skills necessary to find and hold competitive jobs.

The programs are conducted by the College's Center for Program Development for the Handicapped, which was established in 1975 to help make the resources of all nine City Colleges accessible to handicapped individuals in the city. In addition to the vocational training programs, the center provides support services to disabled students (e.g., interpreters for the deaf students) and specialized programs for handicapped individuals who are unable to benefit from the College's regular programs. Students in the Vocational Training Program often avail themselves of the other programs and services operated by the center.

Work-Site Training

Each of the Vocational Training Programs is designed to provide intensive training for the student in an actual work environment and to eventually place the individual in competitive employment. This arrangement helps each student learn and develop skills under conditions identical to what they will find in full-time jobs. This cooperative arrangement with local businesses also reduces the need for training facilities and additional technical training instructors to be retained by the College, and assures that individuals are receiving up-to-date training for jobs that are currently available.

The programs are conducted at the job sites listed below, and involve training in a variety of specific occupations.

Food Service Program
University of Illinois Circle Campus

Students receive training and instruction in the following areas: food service sanitation and hygiene, dishroom work, pot and pan washing, hot line serving, cold counter servicing, cafeteria bussing, cold sandwich preparation, beverage maintenance, salad preparation, cooking, and dock work.

Maintenance/Laundry Services Program
University of Illinois Circle Campus
University of Illinois Physical Plant

Students receive training and instruction in the following areas: indoor maintenance skills, outdoor maintenance skills, and laundry work.

Clerical Program
Continental Illinois National Bank

Students receive training and instruction in the following areas: office procedures, beginning typing, office machines, remittance banking, document processing, balance control, distribution services. At the college, students receive instruction in office procedures and typing. On-the-job training is provided in the Check Processing and Internal Distribution Divisions of the bank.

Hospital Service Program
University of Illinois Research Hospital

Students receive training and instruction in the following areas: hospital sanitation and hygiene, patient transport, hospital food service, and hospital housekeeping.

Hotel Service Program
Hyatt Regency Chicago

Students receive training and instruction in the following areas: banquet portering, lobby portering, dishroom work, housekeeping, convention set-up services, and storeroom clerking.

Students

Students enrolling in the program must present proof of a handicap-

ping condition (usually certified by the Department of Rehabilitation Services), as well as being 18 years of age or older and a resident of Chicago. Presently, more than half of the students entering the program are individuals who have previously been clients of sheltered work programs. The students served to date have been identified as mentally disabled by either the schools, vocational rehabilitation, or mental health and development disability programs. Each of the students are also eligible for CETA training stipends because of his/her handicapping condition. Referrals of potential students are received from a variety of agencies and organizations serving handicapped individuals. Entering students must be able to travel independently, have the basic social, physical, and work skills to enter training, and express a career interest in one of the five program areas. Prior to admission, prospective students are interviewed and given an on-the-job evaluation to determine their level of readiness for the vocational training program.

Staff and Services

Each of the five programs is staffed by a team of three professionals who spend their work day at the training site. This team is responsible for developing and monitoring each student's individual vocational training plan. The training coordinator handles communications and public relations with the employer's staff at each site, teaches the students basic skills in both the classroom and on the actual work floor, and provides counseling or work-related social and behavioral problems. A part-time job coach assists the training coordinator in instruction and counseling. A placement specialist places students in competitive jobs and follows-up on their employment performance. The Coordinator of Program Services works closely with all of the referral agencies to make them aware of the Vocational Training Programs and coordinates all direct support services provided to students.

Evaluation Outcomes

A total of 216 students have entered the vocational training programs since it opened in 1979. Each of the six month program cycles enrolls 12 students. Listed below are the number of students who have enrolled in the programs, as well as the number who have been placed in competitive jobs, as of April 1982.

	No. Enrolled	No. Completing Training	Placed in Competitive Employment
Food Services	72	60	47
Maintenance/Laundry Services	48	43	29
Clerical	36	31	21
Hospital Services	36	30	23
Hotel Services	24	20	19
	216	184	139

The employers who provide the training sites are quite positive about the effects of the program. A total of 34 students have been hired by the sponsoring employer following the training period. The comments of several employers reflect their impressions about the program:

> The Hotel Training Program has been quite an asset to the Palmer House. It is especially helpful to us to meet candidates (for employment) with applicable training and experience. Last year we hired two referrals from the program. . . . We hope to maintain a solid working relationship with the staff of the Hotel Services Training Program.
>
> Betty Bentley
> Palmer House
> Personnel Department

> As Director of Food Services at the University of Illinois at Circle Campus, I have made a number of observations of the Vocational Training Program. The professionalism of the staff is superior to any group I have worked with during my career. The program syllabus is followed very closely and achieves impressive results. Job coaches have worked intensely to understand Food Services goals and objectives. This program is truly a credit to all who have served and those who have rewarded from their efforts.
>
> William J. Hickey, Jr.
> Director of Food Services
> University of Illinois–
> Chicago Circle

> When the first class of 12 students graduated in September 1981, five of the students were hired by the Hyatt Regency Chicago. We have been very pleased with these graduates and look forward to hiring students from the present class.
>
> Tom Pawlak
> Director of Human Resources
> Hyatt Regency Chicago

Follow-up contacts are maintained every six months with each student who has completed the program. These reports indicate that 75 percent of the 184 program completers are presently employed. Eighteen percent (18%) of them are working for employers that provided the training, while the others have successfully entered employment with another firm.

Funding

The program staff have been successful in locating several state and federal funding sources. Support for the program comes from the Illinois Department of Mental Health and Disabilities (DMHDD), the Illinois Community College Board (ICCB), the Illinois Department of Adult, Vocational and Technical Education, and the Mayor's Office of Employment

and Training. More than half of the current operating budget of $226,000 is provided by the DMHDD. The balance of the program's budget comes from a CETA Title II-B grant for classroom training and a ICCB disadvantaged student grant. Also, each trainee receives a stipend of $3.35/hour for participating in the training. On the average, this stipend totals $3,050 for the six month training period.

Profile of a Graduate: Linda S.

After being employed full-time for more than a year as a clerical trainee at the Continental Illinois National Bank in downtown Chicago, Linda's general observation is: "I'm doing very well now. I can remember being out of work and that was the worst time of my life. I look forward to coming to work every day. I'm glad I was in this program. I don't know where I would be if it wasn't for this program. It's a wonderful program."

Linda is 35 years old, divorced, and is considered to be a slow learner. She was referred to the Vocational Training Program by a private foundation in July 1980 after having been employed in their sheltered work program for nearly a year. At the workshop she was paid on a piece rate. Linda says, "I was lucky to get $15–20 a week and it was only 3–4 hours a day." She dropped out of high school in Louisiana after having attended 10 different schools and completing the 10th grade. Reports in her file reveal that she encountered a number of personal and family adjustment problems throughout her childhood and young adult years. In 1976 she was described by a psychologist as suffering from chronic anxiety and a tendency toward depression. As she entered the program she was described by the staff as having little confidence in her own skills, extremely low self-esteem, a high degree of nervousness, and poor judgement. Prior to entering the workshop program she had a history of short-term (1–3 month) employment in factory assembly and fast food service jobs, never earning more than $3.00 per hour.

Linda entered the program in August 1980 and graduated the following February. During the program she received a lot of training assistance, and encouragement from her Training Coordinator Jane Bernstein and her supervisor in the Distribution Services Division of the Bank. She also enrolled in and completed a typing course offered by City-Wide College. She received counseling and assistance from the social worker and training coordinator to aid her in controlling her nervousness and anxiety while on the job. Linda also received special training in job skills to help her with interviewing and other important tasks in locating and holding a job.

Jane Bernstein indicates that there are several reasons why Linda was one of the first trainees hired by the bank. "Linda never missed a day of work during the program. She's so motivated, interested, and has so much energy. She talks and works enthusiastically . . . because she knows from experience how hard it was for her to find a pleasant job. She really impressed the supervisor of the Distribution Services Division." In February 1980 Linda was hired at the starting salary for Distribution Clerk

COST-BENEFIT ANALYSIS PROFILE
Linda S.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$4,934.10
Related social costs (Monthly subsidy × 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	0
Other significant social costs:		
Benefits to Society (1981)		
Total earnings		$7,759.14
Federal taxes paid		974.28
State taxes paid (2.5%)		172.10
FICA (6.4%)		1,032.14
Employer's share of:		
Retirement		
Health/life/dental insurance		
Other benefits:		

Trainees. She is now earning a competitive salary, which exceeds $5.50 per hour, based on her outstanding performance. At her present salary she will earn more than $10,500 this year.

Vicky Catenacci, Linda's present supervisor, has also been impressed by Linda's job performance. "Linda picks up knowledge on her own and is always willing to help out. . . . Her attendance and punctuality are outstanding . . . Linda is now handling mail investigation (using a computer terminal) to determine the correct office address for correspondence that

is addressed incompletely. . . . I'm hoping that a clerical position comes open because I would like to see Linda promoted. She has worked very hard and deserves it." Regarding the program in general, Ms. Catenacci also had some very positive reactions. "Every single one of the people I have hired from this program is a good worker and more conscientious than some of my other staff. . . . We have gotten some *very* good people from this program and any business relies on good, dependable employees, and what more could you ask for?"

COST–BENEFIT OBSERVATIONS: Linda S.

1. During 1981, Linda paid $1,146.38 in federal and state income taxes as a result of being competitively employed. The cost of her training program will be fully reimbursed by the taxes she is paying in 4.3 years.
2. Immediately prior to Linda's involvement in the program, she was earning approximately $20 a week in a sheltered workshop. At this rate she would have earned approximately $1,000 annually. As a result of participating in the program and becoming competitively employed, Linda's income and purchasing power increased by more than 700%.
3. Because Linda had worked sporadically prior to entering the program, she would be eligible to receive some unemployment insurance. In May, 1980, she was laid off from a job which would have entitled her to $62.00 per week of unemployment insurance for 26 weeks. Instead of drawing unemployment she decided to enter the training program. This decision represented a cost-savings of $1,372 to the taxpayers of Illinois.

FOOD SERVICE TRAINING PROGRAM
Triton College; River Grove, Illinois

Since 1975 Triton College has operated a vocational food service training program that has served over 150 handicapped individuals in the west suburban area of Chicago. Of these 150 students, 96% completed the training program and were employed and 80.8% were employed for at least a six-month period following the program.

The need for the program, which has been funded by the Suburban Cook County Prime Sponsor under the CETA legislation, arose from a lack of functional training opportunities for handicapped youth. Most often, handicapped youth finish high school with little or no vocational training and find it extremely difficult to obtain and hold competitive employment (Brolin, 1982). With the help of CETA funds the program began with 31 students in September, 1976.

Goals and Objectives

The ultimate goal of the program is to train and place mildly and

moderately handicapped individuals on jobs in the community. When students are provided with intense opportunities to learn food service skills under supervision in a college cafeteria, they are able to make a successful transition to the world of work. The program also seeks to provide the students with attitudes, skills and knowledge which enable them to seek and retain employment on a lifelong basis.

Students

Nearly 65% of 150 the students served have been identified as educable mentally handicapped by the referring agency. Approximately 12% of the enrollees have been students with specific learning disabilities, while 10.8% have been identified as trainable mentally handicapped. Emotionally disturbed, cerebral palsied, deaf, and hearing impaired students have also been served.

Students between 18 and 46 years of age have participated in the 30-week program with the average age being 21.4 years. The average reported IQ of entering students has been 68.5.

The prospective students are referred to the program by special education teachers, DORS counselors, sheltered workshop personnel and representatives of parent and advocacy organizations such as the Association of Retarded Citizens/Illinois.

Programming

To assist students and staff in program planning, prospective students complete a Food Service Basic Work Skills Assessment. This job sample is designed to assess minimal competencies needed to participate in the Food Service Program. Among other skills, it assesses physical ability (lifting, bending, etc.), fine motor skills, ability to attend to a task, spatial orientation, and the ability to follow verbal directions. Since nearly twice as many students apply for the program as can be accepted each year, the job sample is helpful in identifying those students who can be the most successful.

The college's cafeteria facilities are used to provide individually-paced training in the following areas: basic baking, dishwashing, cafeteria set-up and service, fast foods, food preparation, equipment use, general safety and sanitation. Optional areas of training include cashiering and catering. Students advance at their own rate through each of the areas, and often receive intense one-to-one instruction from the staff. In addition to specific job skills, getting along with co-workers, on-the-job problem solving, and independent decision-making skills are stressed.

The students receive both classroom and floor training during the seven-hour work day. The classroom instruction focuses on independent living skills (e.g., budgeting, consumer education) and job seeking skills (e.g., locating employment, interviewing, completing job applications). As students demonstrate the capability for competitive employment, they are assisted by the Placement Coordinator in locating a job. On-the-job training and assistance are provided by the coordinator to assist both the student and employer through the initial adjustment phase. Follow-up

contacts are made monthly for six months and supportive services are provided when necessary. Students may continue to receive follow-up assistance beyond the six month period should it be necessary.

In addition to the Program Director, a Trainer and Job Placement Coordinator are employed. These three professional staff are responsible for the overall operation of the program.

Outcomes

As noted earlier, the completion and job placement rates for the program are excellent, 96% and 80% respectively. Students who enter the program appear to be quite successful in obtaining employment in the food service industry. A follow-up survey was mailed recently to 80 of the program completers for whom an accurate address could be located. Thirty-eight (47.5%) of the questionnaires were returned. Thirty of the 38 respondents (78.9%) of the respondents were still employed. This statistic is especially impressive due to the notoriously high turnover rate in the food service industry and the traditionally high unemployment rate of handicapped individuals (*Federal Register*, September 25, 1978). The students responding to the survey were employed in a variety of settings, including hospitals, health care facilities, industrial cafeterias, and restaurants. Some of the informal comments provided by the former students are also quite enlightening:

> Keep up the great work. I was very glad to be in the program. I'm sorry I gave you all that trouble but thank you for taking all the time to help me.
>
> Where can I get some more training?
>
> The program was very good for me. I love the food service industry and I don't think there is any other business I would enjoy more.
>
> I enjoyed myself while I was working there. I liked the instructors and the students that I worked with.
>
> Thank you for all your help and support.

Future Directions

Initial efforts are underway to develop a janitorial training program to expand the training and job opportunities for prospective students. Efforts are also underway to broaden the funding base for the program. To date, all of the operational budget plus student stipends have been provided through a CETA grant to the College. A 15-member advisory board of local employers and officials has been appointed to examine ways of getting private businesses more involved in the program. In addition, Triton College is paying the students a partial training stipend since they are essentially serving as food service employees during a portion of the training program.

Profile of a Graduate: John C.

If one visits the Hyatt Regency O'Hare and examines the "Employee of the Month" plaque in the lobby, you will see the name of John C. listed for April, 1979. John is one of the 1978 graduates of the Food Service Training program, and has been employed continuously at the Hyatt since February 1978. After four years at the Hyatt John is the senior cook in the employee cantina, which serves two meals daily to the 800 plus employees. He is 33 years old, married, has a 1-year old son, and drives a 1979 Mercury Marquis. John and his wife Jane and son live in a one-bedroom apartment in Forest Park and have plans to move to a larger place when the baby is old enough for Jane to work part-time.

John comes from a close-knit large family. His family and teachers throughout school have helped him adjust to his limited academic skills, and mild cerebral palsy condition which affects both his gait and speech. Throughout his twelve years in school he was in a program for educable mentally handicapped students. He first became interested in the food service industry when he worked in the cafeteria kitchen in high school. Following his graduation from high school he worked sporadically and for short periods of time at several gas stations. He also did odd jobs at this father's trucking company.

According to John, the Food Service Training Program at Triton helped him to learn several additional food service jobs and taught him how to do things the correct way. He also feels the staff was responsible for helping him get the job at the Hyatt. "Without this program, I'd probably be out on the street looking for work."

John's job performance to the Hyatt appears to be outstanding. Bonnie Thomsen, John's supervisor, notes: "John has been a big asset to us down here. He is very versatile. If we are short someone in the dishroom, John will jump right in. He is more conscious of health and sanitation considerations than some of our other employees—which is largely because of his training." John has become an integral part of the staff and often assists in the orientation and training of new employees in the cantina. In addition, he fills out the requisitions and orders supplies.

Susan Roman from the Personnel Office knows John on a personal basis. "He didn't miss any work, even though he had some family problems last summer. Everyone here was really pulling for him because he's such a great person. . . . Because he is a senior member of the department, he is always guaranteed full-time hours—which we cannot always do for the employees when the hotel occupancy is down. . . . He is always here and he never calls in sick. . . . Perhaps most importantly, he recognizes his abilities and is conscious of when he's having a bad day."

The future looks very bright for John at the Hyatt. Bonnie indicated that "He could move up to the main kitchen with some more preparation." Susan also mentioned that this promotion for John has been discussed seriously. When John started at the Hyatt he was earning $3.34 per hour, he's now at $4.20 per hour. The Employee of the Month award also

COST-BENEFIT ANALYSIS PROFILE

John C.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$2,704.17
Related social costs (Monthly subsidy × 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	0
Other significant social costs:		
Benefits to Society (1981)		
Total earnings		$8,975.00
Federal taxes paid		938.00
State taxes paid (2.5%)		235.00
FICA (6.4%)		1,149.00
Employer's share of:		
Retirement		31.19
Health/life/dental insurance		30.40*/7.81–
Other benefits:		

*Health
–Dental

carried a $100 bonus.

John's outlook on his job and his job's effect upon others is extremely enlightening. "Sometimes I'm the first person they see in the morning. When somebody comes in with a sad look on their face, I try to cheer them up."

COST-BENEFIT OBSERVATIONS: John C.

1. In 1977 the cost of John's training program at Triton College was $2,704.17. In 1981 John paid $1,173 in Federal and State Taxes without drawing any social welfare benefits because he was employed on a full-time basis throughout the year.

   While his income for 1978 through 1980 is not known, it is likely that the total cost of his training was re-paid by his state and federal taxes during 1978 and 1979. In John's case, this represents repayment of the social costs in less than two years following completion of the training program.
2. Had John not participated in the Food Service training program and assuming he would have continued his sporadic, part-time employment record, it is likely that the recession of 1981 and 1982 would have severely restricted John's employment opportunities. In all probability he would have been unemployed for extended periods of time or employed in a sheltered workshop setting. The unemployment compensation and/or sheltered employment subsidy which he did not draw represents a considerable cost savings for Illinois taxpayers.

SPECIAL EDUCATION RESOURCE PROGRAM
Lake County Area Vocational Center; Grayslake, Illinois

Lake County Area Vocational Center (LCAVC) located in Grayslake, Illinois, provides vocational education to approximately 1,600 students from 21 participating area high schools. Classes are offered in 22 program areas during three 2-hour shifts each day. In 1981–82, a total of 232 handicapped students were integrated into the following 21 programs: Ornamental Horticulture, Business Data Processing, Secretarial Office Occupations, Health Occupations, Care and Guidance of Children, Commercial Food Service, Air Conditioning/Heating/Refrigeration, Auto Body, Auto Mechanics, Building Trades, Cosmetology, Diesel Mechanics, Graphic Communications, Industrial Electrical Maintenance, Machine Shop, Media Specialist, Radio/Television Repair, Small Engine and Recreational Vehicle Service, Medical Assisting, and Welding.

Handicapped students receive the support of the Special Education Resource Program, which has been in operation for four of the five years of LCAVC's existence. A full-time resource instructor is employed by LCAVC to coordinate the development of the Individual Vocational Plan

(IVP), to monitor student progress, to assist instructors in individualizing instruction and to act as a liaison between the home school, LCAVC, and the vocational instructors. Services provided for each handicapped student include assistance with tests and reading materials, curriculum modification, grade contracts, follow-up home school consultations, parent consultations, and informal student counseling.

The LCAVC also maintains a comprehensive Vocational Assessment Lab (VAL) staffed by two trained evaluators. Counselors in the 21 participating high schools and Special Education Cooperative Districts may refer students to the assessment lab for approximately 20 hours of testing. Vocational evaluation units from the Jewish Employment and Vocational Service (JEVS) system and the Singer system are used in the VAL. In addition, the assessment lab provides a variety of interest inventories and hands-on work samples in 23 different areas. After completing the assessment activities, each student receives a full assessment report. The written assessment report is also provided to the student's parents and staff at the home high school. In most cases, a complete vocational assessment report is prepared for special education students before placement at LCAVC is considered. The Special Service Instructor and Vocational Evaluators work with staff from the sending high school to interpret assessment results and determine appropriate program placement for handicapped students.

Employment placement services are provided LCAVC students through cooperation with the Illinois Job Service. A placement center is located in the Vocational Assessment Lab and the placement counselor assists students in locating part-time and full-time employment.

Funding for the LCAVC is provided through local funding from participating high schools, state funding from the Department of Adult, Vocational and Technical Education (DAVTE), and some Comprehensive Employment and Training Act (CETA) funds.

The LCAVC graduated 69 handicapped students who had completed vocational education programs in the 1980–81 school year. While handicapped students are not identified separately after graduation in the follow-up studies, the follow-up study of the class of 1981 revealed that 69% of the LCAVC graduates were employed full or part-time. Approximately 20% of the responding 1981 graduates were in the military or attending a post-secondary education program. Only 11% of the 1981 graduates indicated they were currently not employed.

Profile of a Graduate: Carol J.

Carol J., a 21 year old nurse's aide, has been successfully employed at Winchester House, a county nursing home, in Libertyville since 1979. She is a rather quiet, attractive young lady who enjoys working with people and seems to have a job that provides a great deal of personal satisfaction. In her conversation she said she could not have obtained her job without the training she received at the Lake County Area Vocational Center.

Carol's academic career began in a parochial school but her mother had her transferred to public school to take part in the special education program. Carol was identified as Educable Mentally Handicapped (EMH) and attended special education classes through elementary and high school.

Test scores in her cumulative file from 1971 placed Carol's IQ in the upper one-third of the EMH range and her reading and math skills in the low elementary range. Testing also revealed some visual perceptual deficits. Carol stated she did not like school, especially high school, even though her grades and teacher reports were good. She was enrolled in Driver's Education during her sophomore year and passed the test for her driver's license when she completed the course at age 17.

In June 1978, Carol was referred by Round Lake High School to the Vocational Assessment Laboratory at Lake County Area Vocational Center (LCAVC). In the assessment lab, Carol was involved in approximately 20 hours of tests and work samples designed to assess her skills and interests. The results of the JEVS evaluation system indicated her work performance was "slow and not competitive, but of good quality." The Singer Picture Interest test suggested Carol's career interests might lie in the medical services or agricultural services career fields. The S.R.A. Reading Index provided a score in the Level III range, indicating her ability to comprehend phrases and simple sentences. Carol's personal interests suggested a career in medical services, but concern was expressed at the time regarding her chance for success because of her low reading and math achievement scores, and her limited ability to follow directions.

Carol said she developed an interest in nursing in 6th or 7th grade, and apparently this interest has compensated for deficits in her academic skills. She was enrolled in the Health Occupations program at the LCAVC in the fall of 1978 and completed the two year nurse's aide course successfully. Mrs. Mary Ann Foley, the instructor reported that Carol's progress was satisfactory. In addition, Carol demonstrated several positive personal characteristics such as "awareness of her capabilities and limitations" and her "ability to make prudent decisions." While enrolled at the LCAVC, Carol received the services of the Special Needs Resource Instructor, Mrs. Kathy Gemple. Mrs. Gemple assisted Carol with her tests and student learning packets from the Health Occupations program, in addition to providing emotional support and informal counseling. As a student in Health Occupations, Carol was introduced to Winchester House on field trips and through "extended campus," a component of the program in which students gain practical experience by working with patients in the nursing home.

Carol began working at Winchester House part-time in the kitchen while still enrolled at LCAVC. As a kitchen worker she was paid $3.40/hour and did not receive health insurance or other benefits. Upon graduation from LCAVC in June, 1980, Carol was employed as a member of the patient care staff at Winchester House as a full-time nurse's aide. Winchester House provides an in-house nurse's aide training program which leads to

certification for nurses aides. Carol passed this course with no difficulty and said she was able to do well because of her courses at LCAVC. She is currently employed as a certified Aide II earning $4.80/hour with full benefits which include free health and dental insurance, two weeks paid vacation, 13 paid holidays, one paid sick day per month, three paid personal days per year, overtime, and a periodic bonus, which is based on evaluation. Carol was evaluated recently and received the second highest bonus given at that time. The bonuses ranged from $75–$300 depending on the evaluation scores.

Carol's supervisor, Mrs. Burke, is very satisfied with her work, as the bonus indicates, and describes her as "very honest, neat, clean and a caring person." She is well liked by the patients and her co-workers and is able to perform all the duties required of a nurse's aide. She is "conscientious and always on time," according to Mrs. Burke, who "never considered Carol handicapped but possibly a little slow." Recently, Carol started the training program required for charting patient records and is proud of the additional responsibility she has been given as a result.

Carol is currently living at home with her mother because recent dental bills take a large part of her paycheck. Born without a thyroid gland, Carol is now undergoing extensive dental work to correct problems associated with this deficiency. Her dental insurance pays half of the expenses but she must pay the remainder. She is very interested in renting an apartment in the future but indicated she cannot afford to do so at this time.

Her job at Winchester House has provided Carol several social contacts. She frequently socializes with other nurse's aides and also commutes to work in a car pool with co-workers. Carol enjoys her 1979 Firebird, but is concerned about its low gas mileage. She enjoys bowling and water skiing and was bowling in a league before she began working the 3–11 p.m. shift.

Carol would like to attend the nearby community college and take the Licensed Practical Nursing (LPN) course offered there. She took the entrance tests but did not score high enough to enter the program. She is now investigating the possibility of obtaining special tutorial assistance in the LPN course and seems determined to follow through. She wants to continue her career in the nursing field as a licensed practical nurse, and with the determination she has shown Carol may well be able to reach her goal.

COST-BENEFIT ANALYSIS PROFILE

Carol J.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$2,000.72
Related social costs (Monthly subsidy × 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	0
Other significant social costs:		
Benefits to Society (1981)		
Total earnings		$9,944.00
Federal taxes paid		1,147.00
State taxes paid (2.5%)		224.00
FICA (6.4%)		636.42
Employer's share of:		
Retirement		447.46
Health/life/dental insurance		737.88
Other benefits:		

COST-BENEFIT OBSERVATIONS: Carol J.

1. Since graduation from the LCAVC in June, 1980 Carol has been employed on a full-time basis. Her hourly earnings have increased from $3.40 to $4.80 (nearly 42%) in two years. In addition, she has received a bonus for her outstanding job performance.
2. In 1981, her federal and state income taxes and FICA contributions totaled $2,007.42. In the 2¼ years that Carol has been employed since graduation, her taxes have repaid the cost of her program at the LCAVC nearly two times over. The complete cost of her training was repaid to society in just one year of full-time employment at Winchester House.
3. The economic and employment future looks extremely bright for Carol. She has received one promotion to date, and is actively seeking an opportunity to enter an LPN program that will enable her to upgrade her skills and income. In addition, the allied health services field is growing rapidly, and will continue to provide excellent employment opportunities for trained individuals such as Carol.

EVALUATION AND DEVELOPMENTAL CENTER
Southern Illinois University at Carbondale

The Evaluation and Developmental Center is the service center of the Rehabilitation Institute at Southern Illinois University-Carbondale. The Center provides vocational evaluation, developmental skills training, and job development and placement services to vocationally handicapped individuals in Southern Illinois and also provides a training and research environment for students, faculty, and staff of Southern Illinois University-Carbondale. The Rehabilitation unit of the Evaluation and Developmental Center (EDC) was founded by the Illinois Department of Rehabilitation Services.

Eligibility for admission to the EDC requires that each individual be sponsored and referred by the Illinois Department of Rehabilitation Services. The individual must have a physical, mental, or emotional problem which creates a barrier to employment. Further, individuals must:

- be 16 years of age
- be able to demonstrate self care and responsibility for his/her medication
- not be dangerous to himself/herself, property, or others
- have means of transportation or be capable of being transported by EDC transportation service.

The emphasis of the EDC is placed on assisting people in achieving their maximum potential as financially self-sufficient workers. The services provided include vocational evaluation which is a program designed to assess a person's vocational aptitudes, abilities, and interests along with his or her work habits and attitudes. Developmental Skills Training is the title given to instruction in all levels of general education such as

Adult Basic Education, Adult Secondary Education (GED), and Secondary Review, which is designed to upgrade the academic skills of the potential employees to a level necessary for particular job or further vocational training. The EDC also assists employers in meeting manpower needs. A placement staff screens program participants and recommends competent people for specific employment situations. On-the-job evaluation is a part of the placement service with an individual working for an employer in the community. This is usually for a two-week time period during which EDC pays the individual's salary and carries workmen's compensation insurance on the individual. On-the-job training is also available with an individual being trained at the job site for three months during which time EDC reimburses half of his or her salary. The placement staff provides assistance to the employer for up to one year following employment. Employers may also request that the EDC placement staff view a particular work environment and suggest modifications which would accomodate a disabled worker.

Located in close proximity to EDC is New Horizon Living Center, Inc. This is a nonprofit, tax exempt corporation established in 1975 for the purpose of serving disabled individuals of Southern Illinois. The agency maintains a 21-bed residential facility for physically and mentally disabled adults who are in need of training and/or supportive services in the area of independent living and community adjustment. The program involves the use of assessments and training in adaptive living skills that improve the ability of clients to make a smooth transition to independent living in the community. New Horizon Living Center contracts most of its residential space to the Evaluation and Developmental Center of Southern Illinois University. The Center also accepts placements from other state and local agencies and from private families. Other funding comes from private donations.

Profile of a Graduate: Bobby J.

Bobby J. is 23 years old and employed as a janitor and general maintenance person for the Elks' Club in a small town in Southern Illinois. Bobby was employed by the club in March of 1981 as a part of an on-the-job training (OJT) program during which time he earned the minimum wage of $3.35 per hour. Bobby works six hours per day, six days a week. He approaches the job in a very methodical and organized manner moving from each task to the next on a well defined schedule and utilizing a very specific routine for tasks such as sweeping, dusting, table setting, scrubbing, and waxing. In 16 months of employment he has missed only three days of work. On one occasion Bobby was forced to leave work two hours before he was scheduled to do so due to illness. Dick Perry, Bobby's manager at the Elks' Club, has been pleased with his work and is especially pleased with his dependability. Mr. Perry wishes "Bobby could adapt more quickly and easily to new situations." However, he also realizes that the few problems created by his adherence to routine are more

than offset by his reliability and consistency. Bobby's wage was increased to $3.50 per hour as of April, 1982 and he received a $26 bonus in December of 1981.

Bobby was placed in special education when he entered elementary school and spent his entire formal education within the public schools in a variety of special classrooms. Most of these classrooms were designed to serve students identified as Trainable Mentally Handicapped (TMH). Bobby has serious otitis media of the right ear and chronic otitis media of the left ear and a history of severe speech problems which now seem to have been corrected. Tubes have been placed in both ears and are periodically replaced. Intelligence tests administered in 1971 estimated Bobby's I.Q. to be in the middle 40s to low 50s. When he reached high school Bobby was spending part of his time in the TMH classroom and part of his time in a sheltered workshop environment. The most recent testing indicates Bobby's I.Q. to be approximately 70. Shortly after his most recent testing Bobby was referred by the school counselor to the Vocational Adjustment Counselor (VAC). The VAC is employed by the special education cooperative district, has a case load of between 120 and 130 students,and assists students in acquiring employment skills as well as in finding employment. It seems apparent that Bobby's referral to the VAC and subsequent placement were the beginning of some rapid positive growth.

At the time of referral to the VAC Bobby's self-image was perceived by the involved school personnel to be positive. His speech was slow and mechanical, and he stated repeatedly that his number one goal was to be able to do some kind of work for which he would receive a paycheck. Bobby's mother has been supportive of educational efforts, but has also been very protective and doubtful of his ability. Bobby continually expressed the belief that he could do more than people thought he was capable of doing. Shortly after his placement with the VAC Bobby's classroom assignments were lengthened and made more difficult. Despite the successful completion of these increasingly more difficult assignments and overall academic improvement, Bobby continued to work in the TMH classroom. The staffing team at the high school made the judgement that a change of placement might be traumatic and do more harm than good.

Bobby graduated from high school and after graduation the VAC referred him to the Evaluation and Developmental Center (EDC). Bobby was placed at the EDC in July of 1980 and was also placed concurrently at the New Horizon Living Center, Inc. He remained at the EDC for one year during which time he participated in classes designed to increase his job readiness skills, his demeanor or social skills, and was instructed in methods for finding and keeping a job.

The EDC found Bobby to be an unusually expensive client. Most clients find permanent employment and leave the program within six months of placement. Three times Bobby was placed in an on-the-job evaluation. A Job Development Specialist for EDC indicated that less than 10 percent of all clients need this much effort before a successful

placement is made. There seems to be little doubt that Bobby was fortunate in that the professionals assisting him throughout the period previous to his successful placement did not at any time abandon the belief that he would be successful in a competitive work placement and would eventually be able to live independently. Each staff person interviewed indicated that Bobby exhibited a certain "spark" or enthusiasm that helped to sustain their efforts and assisted them in the maintenance of the belief that he would become a successful client.

As might be expected, Bobby's social skill development has been slow and remains below a typical or normal level. He has had difficulty in making friends and has been considered to be somewhat of a loner. Peers and professionals alike have expressed the opinion that Bobby is hostile at times and that at other times he has tended to ignore people. It is likely that his hearing difficulties are at least partially responsible for these perceptions. When being interviewed for this case study, Bobby remarked: "I like you because you talk loud." Bobby's social skills have shown marked improvement since his on-the-job evaluation and subsequent employment at the Elks' Club. He attends church regularly, plays softball for the church team, enjoys bingo, and attends movies among other recreational activities.

Members of the club where Bobby works also hire him to do odd jobs for them and he has proven to be highly capable of handling lawn work, painting, cleaning, and other residential maintenance work. These jobs seem to have been beneficial to Bobby's social skill development, his self-image, and his ability to be self-supporting.

Bobby lives within walking distance of work and, although he has a driver's license, he does not own a vehicle. He is currently saving money for the purpose of buying a 10-speed bicycle. Bobby would like a car but believes he will be unable to own one for several years. He expressed an unwillingness to acquire anything he cannot pay for in full at the time of purchase. Bobby currently lives in subsidized housing for which he pays 25 percent of his total income per month. His employer provides major medical health insurance at a cost of $81.18 per quarter to the employer. Bobby receives no other support or benefits and is self-sufficient in every sense.

The cost for one year of training at the Education and Developmental Center including the concurrent residential cost was $8,202. Bobby contributed $458 of this amount which was a portion of the income he earned while on OJE placements.

This was an expensive training program. The primary reason for the high cost of preparing Bobby for successful employment was that he was a difficult client to train and place. Bobby's program at EDC required 12 months while most handicapped clients complete the program in six months or less. Also, it was not until his senior year in high school that those persons involved with Bobby began to believe that he could live and work independently. It is difficult to attach an accurate monetary value to a lifetime of dependency and it is even more difficult to comprehend all of the other costs. We do know that Bobby earned over $6,500 in

1981 and that he paid approximately $519 in federal taxes and $139 in state taxes. Since he has proven to be a dependable and proficient worker it seems reasonable to suggest that his income will increase, thereby increasing his tax paying responsibilities.

What cannot be measured is the pride displayed by Bobby when he talks of his job. The pleasure he derives from his independence and accomplishments is contagious. The people who have worked with him all stated that he has provided them with a renewed confidence and belief in the value of what they do and that he has helped them to face new challenges with greater confidence and enthusiasm.

COST-BENEFIT ANALYSIS PROFILE

Bobby J.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$ 263.42/mo. 3,161.00/yr.
Related social costs (Monthly subsidy × 12 to derive annual cost)	Housing	458.27/mo. 5,041.00/yr.
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	232.00
Other significant social costs:		
Benefits to Society (1981)		
Total earnings		$6,552.00
Federal taxes paid		688.00
State taxes paid (2.5%)		138.80
FICA (6.4%)		355.33
Employer's share of:		
Retirement		
Health/life/dental insurance		324.72
Other benefits:		

COST–BENEFIT OBSERVATIONS: Bobby J.

1. In 1981 Bobby's earnings exceeded $6,500 and he paid approximately $650 in state and federal taxes. It is important to note that this represented income from only 10 months. He finished the program at EDC and was employed in March of 1981. Assuming he will be employed for 12 months in 1982 at his 1981 rate of earnings, his 12-month income will be $7,800 and his state and federal taxes will be $730. Since the vocational training costs for Bobby were exceptionally high ($8,202) it will take about 10.5 years of sustained employment before the training costs have been reimbursed by his state and federal taxes. Since Bobby is presently 23 years old it is clearly feasible for society's investment in his training program to be re-paid before he reaches the age of 35.
2. It is difficult to estimate the social costs for Bobby had he not received the training at EDC. Since his verbal and written communication skills are limited, the likelihood of his obtaining and keeping employment in another field is questionable. Without extensive retraining, counseling, job development assistance, and an understanding employer, it is likely that Bobby would be drawing unemployment compensation or employed in a sheltered workshop.

SERVICE ELECTRONICS
Parkland College

Parkland College is a public two-year community college located in Champaign, Illinois. The college opened its doors in September of 1967 and serves an area that includes more than 3,000 square miles, 55 communities, 225,000 people, and 29 high school districts.

Parkland College offers a comprehensive program in both vocational-technical fields and academic areas. The curriculum is based on the needs of the district's residents and includes courses in liberal arts and sciences, general education, continuing education and courses in occupational, semi-technical, technical and semi-professional fields. In March of 1972 Parkland College was granted full accreditation by the North Central Association of Colleges and Secondary Schools.

Since Parkland College opened in 1967 it has provided services to a wide range of community residents. Over the past few years special emphasis has been placed on meeting the needs of severely handicapped individuals. Six individual programs were determined to possess potential in meeting the needs of these persons. These are: 1) Micro-Precision Technology, 2) Watch Repair, 3) Electronics, 4) Service Electronics, 5) Machine Tool Operations, and 6) Data Processing.

The program offered at Parkland College entitled "Service Electronics" is of particular interest for the purpose of the case study which follows. The Service Electronics program prepares students to work in the field of electronic trouble-shooting and maintenance—such as radio and TV repair shops, self-employment, or in places where electronics control and

processing equipment is used. The curriculum has been successfully adjusted to meet the needs of severely handicapped individuals, particularly those persons who are blind or visually impaired. The student acquires a broad knowledge of electronic principles, devices and systems and learns systematic trouble-shooting procedures in a modern well-equipped laboratory. The minimum requirement for graduation from this program is 30 semester hours.

The Department of Rehabilitation Services (DORS) provides vocational rehabilitation scholarships to those individuals whose disability or disabilities interfer with securing full-time employment. For DORS's purposes, it is important to note that a disability is not necessarily a handicap. Many disabled persons are working full-time and have no vocational handicap. A disability becomes a handicap when it creates a barrier to or interferes with employment. Approximately 50 to 60 students attending Parkland College receive vocational rehabilitation scholarships each semester. A local DORS counselor indicates that 15 to 20 other students are eligible for these scholarships but do not seek them. This same counselor believes that most of these students are unaware that they qualify for such assistance. A vocational rehabilitation scholarship generally pays a student's full tuition costs.

Profile of a Graduate: Lawrence K.

Lawrence K. was born in Champaign, Illinois in 1953 and has spent his entire life in this central Illinois community. Lawrence's sight has been limited since infancy. Furthermore, his vision has been steadily deteriorating and will continue to deteriorate until there is no vision whatsoever. Legally, Lawrence is blind. His oldest brother is similarly afflicted, as is his twin brother.

Lawrence entered the Champaign public schools in the fall of 1959. At that time the Champaign schools were conducting a program which explored the mainstreaming concept. This meant that Lawrence, despite his visual limitations, was mainstreamed from the beginning of his educational experience with one hour per day set aside for braille instruction. Lawrence's vision has always been such that he could not read print. This scheduling pattern with participation in mainstream classes supplemented by one hour per day of special braille instruction was followed throughout Lawrence's public school experience. He believes that mainstreaming was the primary ingredient in the formula that led to his successful and rewarding school experience. While interviewing for the purposes of this case study Lawrence stated that, "I am a 100 percent advocate for mainstreaming and believe strongly that if there is any possible way that a person can be mainstreamed, it should be done." Lawrence also stated that, "institutionalization or segregation of any type tends to create people who have difficulty relating to others and who are perceived by their peers as being different or strange."

Lawrence graduated from high school in 1972. He recalls agriculture

classes as being of special interest and had planned to attend a one-year trade school program in Chicago until he discovered additional information suggesting that perhaps the school would not be appropriate to his needs. Uncertain as to his future, he enrolled in Parkland Community College's general studies program in 1973. He experienced success in the classroom but seemed to lack direction and a sense of purpose. Lawrence attended classes on an intermittent basis for three and one-half years at Parkland.

He had been interested in broadcasting since he was eight years old and at mid-year of the 1967–77 school year Lawrence made the decision to pursue an electronics program. The 18 months spent in this program were directional and successful. He was able to complete the program and meet the requirements to receive a Federal Communications Commission (FCC) radio-telephone operator's license. Lawrence described this license as, "first class—top of the line, enables you to do just about anything with radio and television."

Initially, obtaining employment in broadcasting was extremely difficult. However, in April of 1978 Lawrence was hired in his present broadcasting job which he has held for over four years. He is employed as a Broadcast Production Assistant for the Illinois Radio Reading Service (IRRS) in Champaign. The IRRS serves blind and visually handicapped individuals residing in central Illinois by reading materials, such as eight local daily newspapers, which are otherwise unavailable to this segment of the population. It should be noted that a special decoder is necessary to receive the broadcasts of the IRRS and that these receivers are provided to individuals whose eye doctor certifies that they are unable to read print.

Lawrence has an excellent work record. He arrives 30 minutes early due to his car pool schedule, is a productive worker while on the job, and has been described by others as "pleasant, friendly, and a joy to work with." He works from 12 to 8 p.m. and takes a taxi home, which costs him $4 per day.

Lawrence considers his social life to be the least rewarding portion of the many activities with which he is involved. He very much enjoys meeting people, but is not satisfied that he meets as many people as he would like to. He finds that his life centers around work and work related activities as well as his family. His family orientation is strong and he seems to be a positive influence on his parents as well as his three brothers and sisters.

Lawrence works with his father restoring old cars and owns two which are partially restored at present. He also states that radio repair is a hobby and that he did repair radios at home for a time but found that it was too time consuming and became more than he could handle. Lawrence has a record collection, as might be expected of someone in his profession, and enjoys music very much.

This young man looks to the future with optimism. He wants to continue working in the radio field and would like to enter commercial radio. He possesses strong beliefs regarding the important work of the radio

reading service, where he is a consumer as well as an employee. He hopes to earn a bachelor's degree in a field such as journalism, engineering, or speech communications and believes that such a degree will help him enter commercial radio.

Lawrence is independent and cares for all of his own needs with the exception of his inability to read his own mail. He is currently planning to purchase a home and has saved an amount sufficient for a down payment, but is hesitant to make a purchase at this time due to high interest rates and a concern that the necessary monthly payments would be too large. He also talks of marriage but indicates that he has not yet met the person who will make this expectation a reality.

The Department of Rehabilitation Services (DORS) awarded Lawrence a vocational rehabilitation scholarship which meant that DORS paid his tuition at Parkland College. The tuition costs for his five year period of attendance were $956.50. Lawrence also benefited from tutoring, student aides and instructional material. The cost of these additional services and materials was $2,253.50. These items represent the total amount of direct assistance provided to Lawrence for his vocational training. His 1981 salary at the IRRS was $11,200 and allowing for his deductions, his federal tax payment for that year was $1,209 and his state tax payment was $230.

There seems to be every reason to believe that Lawrence will continue to contribute to the economy. As an employed communicator he has proved his skills and is adept at successfully working with others.

COST-BENEFIT ANALYSIS PROFILE

Lawrence K.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$3,410.00
Related social costs (Monthly subsidy × 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	0
Other significant social costs:		
Benefits to Society (1981)		
Total earnings		$11,200.00
Federal taxes paid		1,209.00
State taxes paid (2.5%)		230.00
FICA (6.4%)		716.80
Employer's share of:		
Retirement		986.61
Health/life/dental insurance		
Other benefits:		

COST-BENEFIT OBSERVATIONS: Lawrence K.

1. Lawrence became employed full-time in the broadcasting industry soon after he completed the Service Electronics program. He has continued in the position for better than four years now. During the four years he was enrolled at Parkland College he received a vocational rehabilitation scholarship, tutoring, the assistance of student aides and instructional materials. These items represented a total of $3,410.00. In 1981 his state and federal taxes totalled $1,439. In this one year he repaid over 40% of the costs associated with his training. In all likelihood, Lawrence's taxes re-paid the cost of the rehabilitation fellowships during the first year of his employment (1978).
2. As a result of his full-time employment Lawrence is an active economic consumer with plans to purchase a home in the near future. Without his participation in the Service Electronics program, it is highly unlikely that he would be as active and productive in the labor market as he is presently.

ILLINOIS CENTRAL WORKSHOP
North Adams, Illinois

The Illinois Central Workshop (ICW) is a private, non-profit corporation located in North Adams, Illinois. Established in 1968 with five clients, its purpose is to provide a program of services in vocational evaluation, vocational adjustment, and placement for handicapped persons over 16 years of age residing in the county. Accredited by the Commission on Accreditation of Rehabilitation Facilities, the ICW also provides a sheltered work environment for those clients who are not able to enter competitive employment. Funding for the ICW is provided through the United Fund, Department of Rehabilitation Services (DORS), Mental Health, Comprehensive Employment and Training Act (CETA), Illinois State Board of Education (ISBE), revenue sharing, private contributions, grants, and contracted work.

The ICW is currently serving 110 clients, ranging in age from 16–76 years of age. In the past, client attendance has varied from two weeks to thirteen years. During each of the past two years approximately 30 clients have been placed in competitive employment, during a time when unemployment in North Adams has exceeded 10%. All clients have taken jobs paying the minimum wage or above with the employer paying 100% of the wages. One client was placed in a job at $5.00 an hour. Follow-up services are continued for employed clients for a period of one year following job placement.

Employment in the sheltered work program at the ICW is provided through sub-contracts with local industry as well as Chicago-based firms. Typical contracts include sorting and packaging, shrink-wrapping, cutting

carpet padding samples, and marking construction barriers. Recycling of aluminum cans is an ongoing project. Workshop employees are paid piece-rate which is based on minimum wage or higher and is monitored by the Department of Labor.

Transportation to the workshop and to jobs in the community is provided by the ICW. Clients must pay a daily fee for transportation which finances one-third of the cost of running the van. This transportation is essential to the employment of many clients in an area where there is no public transportation.

During the school year, classes are taught at the workshop by a teacher of the Trainable Mentally Handicapped (TMH). This half-day teaching position is financed through a cooperative arrangement with the local school district. The basic skills classes are one half hour in length and cover topics necessary to employment and independent living such as word recognition, money handling, personal hygiene, cooking and survival skills. An organized program provides chaperoned recreational field trips at least once a month and weekly social activities for employees. Activities in the past have included trips to Chicago museums and professional ball games, and local picnics.

The ICW also sponsors the local group living facility which houses nine women in North Adams. Current financial limitations have not permitted the establishment of a group living facility for men.

Profile of a Graduate: Robert B.

Robert B., a 43 year old janitor, experienced little success in the public schools because he was mentally retarded. He entered his first vocational training program at age 39 and, following the training, was employed by a small manufacturing firm in 1979.

According to Robert's mother, his problems began with a difficult birth. Robert did not learn to walk or feed himself until he was 4½ years old. He began school in a one room country school with one teacher instructing grades 1–8, but was asked to leave after two years. The teacher could not provide the extra attention Robert needed so he was forced to remain at home on the family farm. His mother tried to teach him to count but was not very successful. In addition to Robert, she had primary responsibility for rearing five other children. At age 12 or 13 Robert learned to ride a bicycle and this continues to be his primary means of independent transportation. He worked with his father doing farm chores and he became proficient at mowing lawns and running errands. At age 19 he learned to drive a tractor. He was able to take responsibility for the water and gas for the tractor as well as hauling grain and unloading it at the elevator. In 1970, Robert's parents retired from farming and moved to a small town of about 800 people in central Illinois. Since there were no farm chores for Robert in town, his early days consisted of riding his bicycle to the local cafe to chat with retired farmers, mowing lawns in the summer, running errands and watching television. Robert became

acquainted with many people in town and several teachers and neighbors encouraged him to attend the Illinois Central Workshop (IVW) in North Adams, about 10 miles away. Through this encouragement, his parents first became aware that vocational training programs were availabio to Robert. They stated that he was always busy on the farm and they were unaware of vocational training until they moved to town.

Robert entered the ICW as a Department of Rehabilitation Services (DORS) client in September 1978 with an eight week evaluation period. The evaluation report indicated good social and conversational skills but severe deficiencies in academic skills which tested below first grade level. The Weschler Adult Intelligence Scale (WAIS) indicated Robert's IQ was in the low 50's. In the vocational appraisal, Robert showed poor fine finger coordination, limited gross motor coordination, and some perceptual difficulties. After the initial training, his performance on the work samples were of good quality, but his production rate was low and difficulty was encountered on jobs requiring simple counting. The Wells Concrete Directions Test suggested Robert would be in the sheltered range of employment and indicated he had difficulty with complex oral directions. His primary vocational interests appeared to be horticultural and janitorial fields. Janitorial training was selected, and Robert entered the work adjustment phase of his training. During this eight months of work adjustment training, Robert learned janitorial skills through one-to-one instruction and modeling the instructor. He was also enrolled in a variety of one-half hour classes at the ICW that provided instruction in independent living skill areas.

Robert entered extended employment in the workshop and remained in this phase of training for four months. During this time Robert was employed by the workshop as a janitor and also as a production worker.

Robert entered competitive employment in February 1979 when he was employed as a janitor at $2.90/hour with a small British-owned manufacturing company in North Adams. J&J Appliances manufactures and distributes seven types of gas mantles. Because of a recent 90% cut back at the North Adams plant, J&J now has a total work force of seven employees housed in two large buildings. Robert was provided additional on-the-job training for approximately one year after he was employed. Differences in the buildings, the stock, and some duties made additional training necessary. Mrs. Jenkins, Robert's employer, assigned a person to work one-to-one with Robert to teach him the job duties. Through this additional training, Robert was able to establish a routine which he follows today. Mrs. Jenkins reports his work is very satisfactory and he has a daily routine that they try not to change.

Robert's inability to read created a small problem which the employer was able to overcome. Robert is responsible for moving certain boxes from the third floor to the loading dock using the freight elevator. Since the customer orders are always the same, Mrs. Jenkins developed a color code system for Robert. Each company was assigned a color and the boxes for that company were marked by color and stacked together in the third floor storage area. Using this color code system, Robert can distin-

guish between orders and move the appropriate boxes to the loading dock without supervision. Mrs. Jenkins reports Robert has some difficulty counting over ten but most orders are small. He knows his directions and is beginning to recognize different customer trucks.

Another potential problem was solved through the employer working closely with the ICW. Robert was having some trouble with some of his cleaning tasks. He was leaving streaks on the windows and not sweeping and mopping areas that obviously needed cleaning. The employer reported this problem to Mr. Heron at the ICW, and the staff then worked with Robert in retraining. The result of the retraining suggested a vision problem rather than poor work skills. Earlier vision tests had indicated that Robert did not need glasses. The ICW referred him to another optometrist who immediately prescribed glasses for Robert. Further checking by the ICW staff and Robert's parents revealed the previous doctor thought Robert did not need glasses because he was unable to read. Once the vision problems were corrected, Robert's work improved.

Robert is currently earning $3.45/hour and receives two weeks paid vacation with eight additional paid holidays each year. Recent company layoffs have forced Robert from full-time to part-time employment. In addition to working at J and J on a part-time basis, he is working part-time at the ICW as a janitor and production worker. Robert earns $3.35/hour as a janitor and earns between $1.20 and $2.17 per hour when he works production. The piece-rate wages of production jobs vary depending upon the contract.

Budget cuts at the ICW have recently required employees to pay for transportation to the workshop and also the jobs in the community. Robert pays $3.50 a day, three days a week for transportation when he is working his regular job, and $2.50 a day, 2 days a week when he works at the workshop. Currently Robert pays $15.50 a week for transportation from his home to the workshop and to his job, about 30 miles a day. North Adams does not have a public transportation system so the ICW must provide the transportation. Robert does not have medical coverage or insurance through his job but does have a medicare health card. He has received Supplemental Security Insurance (SSI) since 1970 and currently receives $220.70 a month.

Robert lives at home with his parents and often helps his mother do housework and laundry. At home he is very self-sufficient and occasionally cooks dinner. He enjoys listening to music and recently purchased a new stereo. Robert and his parents are paying $5.00/hour for a private tutor to help Robert study for his learner's driving permit. He is tutored twice a week on road signs, driving rules, and money handling. The tutor, who was originally recommended by the ICW staff, sends a monthly progress report to the ICW to keep them informed.

Robert enjoys his job and wants to continue with janitorial work. He says he would "... rather do this—it's the only thing I know." He has been involved in many of the recreational field trips and social activities available through the ICW. Robert's parents have noticed a change in him since he started working: "... He seems a lot sharper than he was, more

interested in doing things." They also believe, "If he had had a chance when he was younger he would be different today." Public Law 94-192, the Education for All Handicapped Children Act of 1975, and other recent federal legislation would not have permitted Robert's exclusion from school and his total lack of academic and vocational preparation. He is an example of what could happen if this legislation is repealed. Robert has become a productive, taxpaying citizen—a success—but that success has come much later and much harder for him.

COST-BENEFIT ANALYSIS PROFILE

Robert B.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$4,040.00
Related social costs (Monthly subsidy × 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	$ 147.80	$ 220.70
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	0
Other significant social costs:	0	0
Benefits to Society (1981)		
Total earnings		$3,148.80
Federal taxes paid		
State taxes paid (2.5%)		
FICA (6.4%)		201.52
Employer's share of:		
Retirement		
Health/life/dental insurance		
Other benefits:		

COST-BENEFIT OBSERVATIONS: Robert B.

1. In 1981 Robert's earnings did not reach a level which required him to pay state or federal taxes. While his hourly wage is above the federal minimum wage, his taxable income is limited because of his part-time employment status. If full-time employment would have been available at J&J Appliances, his 1981 earnings would have exceeded $7,000. The recession of 1980 and 1981 has had significant effects upon millions of workers and Robert is one.
2. Although Robert did not pay taxes in 1981, his earnings from parttime employment have reduced his dependency upon social welfare programs. As a result of his limited earnings he is not eligible for the maximum SSI payment. This resulted in a societal cost savings of $768 in 1981.

COOPERATIVE WORK TRAINING FOR LOW-INCIDENCE HANDICAPPED YOUTH
Chicago Board of Education

Since 1972 the Chicago Board of Education has provided a Cooperative Work Training (CWT) program to visually impaired (partially sighted), deaf and hearing impaired, and severely learning disabled students. These are handicapped students who are generally referred to as having low-incidence (less frequently occurring) handicaps. To date, nearly 850 students have been served. The major goal of the program is to provide these students who have specialized disabilities with an exposure to careers, vocational education programs, and community-based work experience.

The students enrolled in the program are identified and classified by the Bureau of Special Education. The criteria used in identifying the students is consistent with the classifications found in P.L. 94-142 and the Illinois Rules and Regulations for Special Education. In addition to receiving special education and related services, these students are also enrolled in regular high school classes. Students entering the program must also be capable of traveling to and from work. In some instances, students may also travel to a neighboring high school from their home high school for the CWT class.

Currently, the CWT program of low-incidence handicapped students is offered in 16 high schools and is staffed by five teacher-coordinators. In addition to being certified as a cooperative work training coordinator, these individuals possess a special education teaching certificate. The teacher-coordinators teach an in-school CWT related course and provide job counseling, placement, and coordination services. Each coordinator provides supervision for 15–20 students who are placed in part-time jobs. This supervision involves frequent communication with the student and employer at the work site. Students can work up to 20 hours per week. They receive an hourly wage which is usually above the minimum wage.

and earn high school credit. Students do not receive a stipend for participating in the program.

The CWT program for low-incidence handicapped youth is a joint venture involving the Department of Vocational and Career Education and the Bureau of Special Education in Chicago and the Illinois Department of Adult, Vocational and Technical Education (DAVTE). In 1973–74 a total of 85 students were enrolled in the program. During 1973–74 the local funding for the program was $35,866. Funding provided by the DAVTE was $34,458 for a total operating budget of $70,324. The average annual cost per student for the CWT program in 1973–74 was $827.34.

Profile of a Graduate: Emanual W.

Emanual has been employed at Kham and Nates Clothing Store in Chicago since 1974. Emanual is a partially sighted individual who requires extensive visual correction. He is able to distinguish colors, numbers, textures, and printed information with major modifications. His overall observation about work is: "I am doing well on the job thanks to the special training that was provided by the CWT program. Mrs. Williams, our coordinator, had lots of time to work with each of the students."

Emanuel, who is 24 years old, attended the James Ward Elementary School at 28th and Shields and graduated from the eighth grade. His high school years were spent at Robeson High School. At Robeson he was enrolled in regular classes and received some vision training from the special education department. It was during his sophomore year, that he became a student in the CWT Summer Program. He was a student in the CWT program for a total of two years. Mrs. Conseulo Williams was his teacher. As a team, they worked to place Emanuel at Kham and Nates Clothing Store at 87th and Cottage Grove. Kahm and Nates is an exclusive clothing and shoe retailing chain which consists of four stores.

Emanuel has worked as a stockboy, cashier, salesman, stock-inventory controller, assistant manager, and manager during his employment at Kham and Nates. He has worked at all the stores and the warehouse. His employers, Mr. Ike Aarron and Mr. Sam Harris, speak glowingly of his accomplishments. They have been extremely pleased with his exceptional training, getting to work on time, cleanliness, attitude toward customers and fellow employees, as well as his overall interest in the stores. Often he comes in on his days off if he knows the stores will be exceptionally busy. His employers also have praise for Mrs. Williams and her concern and close supervision of Emanuel's progress during his CWT program, and following his graduation. Kham and Nates has continued to hire students from the low-incidence CWT program.

Emanuel has his own savings account, checking account, and life insurance policy. He receives a three week company paid vacation. Currently he is earning $220.76 every week. ($4.60 for an hour for a 48 hour week) Last year he earned $13,500.00 and paid federal income taxes totalling $2,500.

His appearance is neat and well groomed. He purchases all of his clothes from the store. During his CWT program, Mrs. Williams stressed the importance of cleanliness and neatness of clothes with her visually handicapped students. His social and recreational activities include: sports, dating, roller skating, attending church, and socializing with friends.

His future plans for employment are to stay at Kham and Nates. He plans to attend evening school to study math and business subjects. Eventually he plans to marry and raise a family.

COST-BENEFIT ANALYSIS PROFILE

Emanual W.

	Prior to Training	During/ Following Training
Cost to Society		
Cost of vocational training (including stipends paid to trainee)		$1,654.68
Related social costs (Monthly subsidy × 12 to derive annual cost)		
SSDI-Social Security Disability Insurance	$0	$0
SSI-Supplemental Security Insurance	0	0
Medicare/medicaid	0	0
Food Stamps	0	0
Unemployment insurance	0	0
Handicapped housing subsidy	0	0
Other significant social costs:		
Benefits to Society (1981)		
Total earnings		$13,500.00
Federal taxes paid		2,500.00
State taxes paid (2.5%)		337.50
FICA (6.4%)		1,728.00
Employer's share of:		
Retirement		
Health/life/dental insurance		
Other benefits:		

COST–BENEFIT OBSERVATIONS: Emanual W.

1. Since Emanual did not have a severe visual handicap requiring extensive special services, the cost of his vocational education program was not excessive ($1,654.68 for two years). Yet, it appears as though the cooperative work training program was instrumental in the employer's decision to hire Emanual following his graduation from high school.
2. Emanual has been employed at Kham and Nates since 1974. While his earnings for the period of 1974–1980 are not known, it is likely that the cost of his CWT training program was repaid fully by his federal and state taxes during the first 3–4 years of his employment.
3. Cooperative work training programs for high school handicapped students appear to be highly cost-beneficial for society because students are generating earnings and paying some taxes on those earnings *before* they complete the program.

Summary Observations

Several key observations can be made about the eight programs that were studied. It is important to remember, however, that these observations are general in nature and are not evaluative. That is, they should not be viewed as suggesting that any one program or program model is more appropriate than another. The programs that were studied were so diverse in their goals, target audiences, level of funding, and delivery system that is not feasible to draw comparisons or judgments. The same diversity existed among the students in their capabilities and learning styles.

Observations About the Programs

As noted earlier, a variety of vocational training and education program models were among the eight programs studied. The programs included three community colleges, two rehabilitation facilities, an area vocational center, a high school and an evaluation and development center. The programs were located throughout the state and operated at both post-secondary and secondary levels.

Extensive Employer Involvement. Each of the programs was planned and operated with extensive involvement from private business and industry. This involvement took various forms. In the Chicago City-Wide College's program the entire six months of training is completed at the worksite under the joint supervision of the College's staff and the employer. Each of the other programs provided on-the-job placement and training at some time during the program. In most cases, the on-the-job training takes place as the student progresses further along in his development of specific job skills. In other instances, programs use local businesses and industries as an "extended campus" for field trips, job shadowing experiences, and interviews and observations of people involved in various occupations. Many of the programs also had or were developing advisory boards composed of persons from local business, industry, governmental agencies, and, in some instances, parents.

Extensive involvement of business and industry in providing vocational education and job training has several positive outcomes. It enables employers to have direct input in the selection and teaching of key job skills, which is essential for insuring that handicapped persons are trained for jobs that exist. Supervised, on-the-job training aids in the school-to-work transition. It helps students evaluate their skills, aptitudes, and interests relative to a specific job before they take a position. Similarly, employers have the opportunity to become familiar with and evaluate prospective employees.

Comprehensive Services. Typically, each of these programs provided a comprehensive array of support services along with the vocational education or job training program. These services are selected and designed to match the needs of clients or students to be served. Those programs serving adults included services such as vocational guidance, social work services, transportation, adult basic education, independent or commu-

nity living skills training, vocational assessment, and job seeking skills training. For handicapped in-school youth, the support services usually included vocational evaluation, special education, social work services, and counseling. In all cases, this set of services was planned, coordinated, and delivered via the student's or client's individualized written rehabilitation plan (IWRP) or individualized education program (IEP).

The availability of comprehensive and effective support services appears to be instrumental in assuring that handicapped learners succeed in vocational education and job training programs.

Program Personnel. In nearly all of the eight programs, the teachers, trainers, evaluators, counselors, and coordinators were individuals with a strong professional and personal interest in working with handicapped students. Most of them had taken their jobs without extensive training and preparation related specifically to vocational education and job training for handicapped persons. Typically, they were professionally trained in one of three fields (special education, rehabilitation, or vocational education), and had little or no knowledge of the other disciplines when they took their job in the program. A great deal of what they learned was obtained "on-the-job." They expressed a need for continuing professional development services such as conferences, seminars, newsletters, and workshops which would enable them to further develop and refine their programs and professional competencies. This observation confirms findings from other studies which indicate that many professionals working in this field have only limited academic and professional preparation related to their current positions (Miller, et al., 1980). The need for personnel development programs providing dual or multiple certification is apparant and significant.

Program Costs. When the costs of these programs are analyzed in total or on the basis of an individual student or client, it appears that they are expensive. The average per student cost of the vocational education or job training program for the eight students studied was $4,175. This figure, which appears high, must be interpreted with caution. The programs varied in length from six months to two years. Also, enormous difficulties exist in accurately estimating the total and per student costs of these programs. Problems in defining and analyzing joint or related costs (such as housing, transportation, etc.) cannot be handled easily or effectively in most cases. However, when one compares the average per student or client cost of $4,175 to the average per full-time student cost of community college instruction ($2,408; American Association of Community and Junior Colleges), high school special education ($2,499; *Education of the Handicapped*, 1982, p. 7), and DORS rehabilitation services for a rehabilitated client ($1,968; Granzeier, 1981, p. 29); these programs do appear to be more costly.

The results of this study also confirm the findings of Schneider, Rusch, Henderson and Geske (1982) and Granzeier (1981), that the cost of training and rehabilitation is directly related to the severity of the individual's disability. The training and rehabilitation periods typically are much longer for severely and multiply handicapped persons, which makes the costs

considerably higher. In this study, the training program costs for two severely mentally handicapped clients were $8,202 and $6,457. On the other hand, the average training program cost for educable mentally handicapped students at Triton College was $2,704.

Interagency Coordination. Among the eight programs there appeared to be several with excellent interagency working relationships. Most of the programs worked very closely with local schools, chapters of the Association for Retarded Citizens/Illinois, the Illinois Job Service, the Department of Rehabilitation Services, and local CETA prime sponsors in program activities such as referral, intake, and placement following training. The programs and agencies did not mention the existence of written cooperative agreements. They appeared to be developing and carrying on their interagency activities on an informal basis. Often the coordination relationship with another agency appeared to have been developed out of the mutual personal interests among key staff members for improving their client's or student's services.

Funding Sources and Uncertainty About the Future. Many of the programs were supported from multiple sources of federal, state, and local funds. Among the major sources of funding were: (1) CETA-classroom training, (2) Department of Mental Health and Developmental Disabilities, (3) Department of Adult, Vocational and Technical Education, (4) Department of Rehabilitation Services, and (5) Illinois Community College Board. In some instances, grants were obtained directly from the agencies for program staffing and operation, while in other instances funding was based upon student credit hour generation (i.e., student completion of the program). The directors of the programs appeared to have been quite successful in obtaining financial support from several of the federally authorized programs. The ability of these individuals to successfully develop and nuture relationships with various funding agencies during the early years of the program was often described as the key to their success.

All of the program coordinators who were interviewed expressed apprehension and uncertainty about the future of the program due to the declining federal interest in and financial commitment to social programs. Those programs that had been operating for more than five years appeared to have developed sources of relatively stable, local funding. However, many expressed the view that they would be forced to drastically reduce their services, staff, and case load if the projected decline in federal and state financial support becomes reality.

Observations About the Students

The eight former students who were included in the study represented a variety of ability levels, disabilities, and occupational interests. As with the programs, this breadth and diversity of student characteristics does not lend itself to evaluative comparisons. However, each of the stories of how students entered the programs, their experiences in the programs, and their transition into competitive employment provides an insight as to the varying effects of the programs upon the students, their families, and

their employers. The following sections briefly describe some of the observations that pertain to the students of these programs.

Obtaining Competitive Employment. In August, 1982 each of the persons studied had been successfully employed in a competitive work situation from one to eight years following the completion of their program. In all eight of the cases, prior to their enrollment in the program they had either been living at home and not working or had poor work records (i.e., part-time or sporadic employment). Three of the seven (Linda, Adam, and Robert) had been totally dependent upon sheltered workshop employment for their income. Through vocational education and job training programs, each has reached a level of employability which can be characterized generally by full-time sustained employment in a private business where they are positively accepted by their peers and where their employers rely upon their capabilities and work performance for achieving a productive level of efficiency in the business world.

Increased Earnings and Tax Contributions. The 1981 earnings for this group of eight former students totalled $65,590, which represents an average income $8,199 in 1981. Specific data indicating their earnings prior to entering the program are not available so it is impossible to determine the earning power which they gained from the vocational education or job training program. In five cases (Carol, Bobby, Emanual, Robert, and Lawrence), the individuals did not have an opportunity to work competitively prior to entering the program due to their age or family circumstances. However, all but one of the former students/clients was employed full-time and earning, on the average, wages exceeding the current federal minimum wage of $3.35 per hour. The one former student had been recently cut back to part-time employment due to layoffs occurring from the current recession. In all cases, the former students reported earning more in 1981 than in 1980, which was attributable to raises and bonuses that had been received. In the case of John C., he received a $100 bonus as a result of being named "employee of the month."

Illinois taxpayers benefited in several ways from these increased earnings. First, it is important to recognize that these individuals have also become taxpayers. During 1981, these eight workers and their employers contributed $14,169 in federal and state taxes and FICA contributions. Second, the earnings they receive usually are added to the economy in the form of purchases of products, goods and services. Their increased incomes make them active consumers and create a demand for more goods and services. These purchases, in most cases, also entail sales taxes, which is another major source of revenue for the government. Lastly, these increased earnings usually create a higher standard of living for the individual.

Reductions in Public Aid. The significant reductions that occur in public aid payments as a result of the increased earnings of these students is also an important outcome. As the case studies indicate, the fact that these former students are now competitively employed on a full-time basis has significantly reduced their eligibility for food stamps and unem-

ployment (Adam) and SSI (Robert). Two other students also indicated that they had received unemployment compensation prior to entering their training program, but were now not eligible. Also, it was apparent from the interviews that several former students and their parents had been reluctant to apply for public aid subsidies for which they were eligible because they did not wish to be viewed as "dependent" upon society. While three of the former students are still receiving some form of public assistance; overall, the level of financial assistance they are eligible to receive has dropped dramatically.

Increased Independence. The increased earnings that the former students have realized from their competitive employment has greatly enhanced their economic and personal independence. Full-time employment enabled Adam, who is moderately retarded, to move into a supported living arrangement in an apartment complex where other clients from the Macon County Rehabilitation Facility share apartments and live independent of their families. For many individuals like Adam this is an important first venture in achieving self-sufficiency.

As a result of being employed at the Hyatt Regency, John has been able to move his wife and new son into an apartment. Previously they lived with his wife's parents. He speaks with pride and a great deal of self-satisfaction about their recent furniture purchases for the apartment.

Enhanced Self-Concept. For nearly all of the eight former students, their present job appears to be a major source of personal satisfaction. For each of them, being employed on a full-time basis has been the first time in their life that they have experienced a major "success." They devoted several months to a difficult and challenging vocational education or job training program. Often they encountered new and complex tasks and problems in their programs, as well as during the early phases of employment. With patience and perseverence they were able to successfully overcome the major barriers they faced. Scenarios such as these appeared to characterize each of the former student's experiences. Having successfully met these challenges has greatly enhanced their self-confidence and improved their outlook toward themselves as individuals and the world in which they live. It appears that their job success has a great deal to do with their enhanced self-concept.

Policy Recommendations

This study of the costs and benefits associated with vocational programs for handicapped youth and adults has yielded several significant and interesting insights. Many of these insights are directly related to economic development and increased workforce productivity in Illinois. Through increased employment of handicapped persons, our productive capacity as a state is expanded. At the same time, earnings are increased as well as the amount of taxes paid to local, state, and federal governments. Simultaneously, the number of handicapped persons receiving public aid is reduced, which results in tax savings for Illinois citizens. Clearly, we cannot afford to "give up" on the goal and principle of providing equal educational and employment opportunities for all of our nation's citizens.

The following insights should prove to be valuable to state-level policymakers in Illinois as they formulate legislation and regulations and determine funding for various programs. The policy recommendations which follow have specific relevance for funding and legislation dealing with employment and job training, special education, vocational education, vocational rehabilitation, and developmental disabilities. These recommendations have similar relevance for local boards of education, administrators, employers and business groups, concerned parent groups, and others who are involved in shaping local policies and programs that address the vocational preparation needs of handicapped youth and adults.

Recommendation #1: Economic Incentives for Employment

1. *Continue and expand economic incentives for private business and industry to employ handicapped individuals.*

In the past economic incentives have been used on a limited basis to encourage employers to hire handicapped persons. The Targeted Jobs Tax Credit program allows employers to receive a tax credit for half of the first $6,000 paid to handicapped employees. A similar tax credit has been available for employing WIN program participants. Tax credits have also been available to encourage employers to modify their business establishments to make them accessible to and usable by handicapped individuals.

Over the past few years numerous studies and stories in the news media have described the perseverence, employability, and productivity of handicapped individuals. Physically and mentally handicapped individuals have demonstrated their capabilities to make important and viable contributions as members of the nation's work force. Yet, unemployment and underemployment of the disabled continues to be higher than it is for the nonhandicapped population. Federal and state policies need to continue and expand the economic incentives for employing handicapped individuals. A variety of tax credits and deductions for private business should be considered, including but not necessarily limited to: (1) tax credits for the initial wages and salaries that are paid to handicapped workers, (2) allowable tax deductions for costs associated with the modification of facilities, job restructuring, modification of work schedules, on-the-job training, and other changes at the worksite which are neces-

sary for successfully employing handicapped workers, and (3) incentives for the private sector to work closely with vocational education, job training, and vocational rehabilitation programs in providing training programs for handicapped employees.

Recommendation #2: Federal Legislative Mandates

2. *Maintain and refine Federal legislative mandates.*

The present Federal legislation which focuses upon education, job training, and employment of handicapped individuals has created significant, new opportunities for disabled individuals to gain access to the classroom and the workplace. Since the implementation of Sections 503 and 504 of the Rehabilitation Act, P.L. 94-142, P.L. 94-482, and the Comprehensive Employment and Training Act (CETA), the number of handicapped persons entering vocational education and job training programs has increased significantly. *Clearly, the mandates for providing appropriate educational opportunities to handicapped youth and adults are needed and should be maintained.* However, refinements and fine tuning of the implementing regulations appear necessary. Adjustments are needed which will enable local schools to efficiently and effectively provide appropriate education and related services without cumbersome paperwork requirements. However, it is imperative that several provisions of P.L. 94-142 and related legislation be retained and strengthened:

- Parent involvement in educational program planning,
- Appropriate individualized education programs for each student,
- Participation by handicapped learners in the full range of curriculum offerings provided in the least restrictive environment, and
- Comprehensive vocational assessment services.

Recommendation #3: Increase Funding

3. *Increase the level of Federal, state, and local funding for programs designed to provide vocational programming for handicapped persons.*

As these case studies have suggested, it is feasible and cost-beneficial for Illinois taxpayers to invest in programs that increase the employability and economic productivity of handicapped persons. This investment could take the form of additional funds or perhaps funds which can be re-allocated from other existing governmental programs. Without expanded funding for these programs, it is likely that these individuals, in many cases, will be dependent upon the various social welfare programs for their existence. Admittedly, the programs and support services are expensive, but the costs of extended dependency are even greater. The investment of local, state, and Federal funds in these programs will continue to yield significant cost savings for society. However, equally important is the recognition that vocational programs can greatly enhance a handicapped person's personal and economic independence. For most disabled youth and adults, the positive feelings of self-worth, dignity, and pride associated with their independence is immeasurable.

Recommendation #4: Interagency Collaboration

4. *Encourage the various agencies at the local level to closely coordinate their programs and services in a cost-efficient manner.*

Numerous pieces of Federal legislation have given responsibility for providing vocationally-oriented programs and services for handicapped persons to several agencies including vocational rehabilitation, CETA, vocational education, and special education. Several programs have the programmatic discretion to provide vocational assessment services, job development and placement, and other key services. To insure that these agencies do not duplicate each other's efforts in serving a common population of clients/students, policies need to be established which provide for formal cooperative agreements and coordination at the community level. These interagency relationships should assure that a full continuum of vocational programming and supportive services is available to meet the needs of each handicapped person in the community.

Recommendation #5: Career Development Education For Handicapped Youth

5. *Strongly encourage local schools to provide early, sequential career development experiences for handicapped youth and young adults.*

To insure that handicapped youth leave the secondary school with marketable job skills, it is important that they be provided with a functional career development curriculum at all grade levels. Efforts to acquaint handicapped children with career options, as well as their potential for pursuing selected careers, must begin at the elementary school level. The junior high or middle school years must provide extensive opportunities to explore careers through field trips, on-the-job interviews, and job shadowing experiences. At the high school level, programs must focus more directly on assuring that all students have functional academic and communication skills, job seeking and survival skills, effective consumer competencies, and a marketable job skill. Parents, educators, and the business and industry community can and must be full partners in the efforts to establish career development curricula in schools throughout the state.

REFERENCES

Adult, Vocational and Technical Education. *Annual Report Fiscal Year 1981 Vocational Education in Illinois*. Springfield: Illinois State Board of Education, 1982.

American Association of Community and Junior Colleges. Just the Facts. Washington, DC: author, n.d.

Bowe, F. *Rehabilitating America*. New York: Harper and Rowe, 1980.

Brolin, D. *Vocational Preparation of Handicapped Citizens*. Second edition. Columbus: Charles E. Merrill, 1982.

Federal Register. Position Statement on Comprehensive Vocational Education for Handicapped Persons, Vol. 43, No. 186, September 25, 1978.

Guba, E. G. & Lincoln, Y. S. *Effective evaluation*. San Francisco: Jossey-Bass Publishers, 1981.

Granzeier, R. W. *Illinois Department of Rehabilitation Services 1981 Annual Report*. Springfield: Department of Rehabilitation Services, 1981.

Miller S. R., Sachs, J. J., Phelps, L. A., Batsche, C., Erekson, T., Hoernicke, P., Wagner, R., Hasbargen, A., and Greenan, J. Career/ Vocational Education: Personnel Needs for Secondary-Aged Handicapped Clientele in Illinois. Springfield: Specialized Educational Services, Illinois State Board of Education, 1980.

Schneider, K. E., Rusch, F. R., Henderson, R. A., & Geske, T. G. Competitive Employment for Mentally Retarded Persons: Cost Versus Benefits in Cobb, B. R. & Larkin, D. (Eds.) Funding and Cost Analysis. Policy Paper Series Document 8. Urbana: Leadership Training Institute/ Vocational and Special Education, University of Illinois, 1982.

Special Education: Look Beyond the Average Cost. *Education of the Handicapped*. Vol. 8, No. 11, June 2, 1982, pp. 7–8.